DOCUMENT RESUME

ED 106 804 88 CS 001 855

AUTHOR	Anderson, John D.
TITLE	South Douglas County Early Childhood Education Project. Third Year Evaluation Report.
INSTITUTION	South Umpqua School District, Myrtle Creek, Oreg.
SPONS AGENCY	Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
PUB DATE	74
GRANT	OEG-0-71-1772(290)
NOTE	178p.; See CS 001 934 for "Effective Reading Programs: Summaries of 222 Selected Programs"
EDRS PRICE	MF-$0.75 HC-$9.51 PLUS POSTAGE
DESCRIPTORS	Early Childhood Education; Educationally Disadvantaged; *Effective Teaching; Handicapped Students; Parent Participation; *Reading Instruction; *Reading Programs
IDENTIFIERS	*Effective Reading Programs; Elementary Secondary Education Act Title III; ESEA Title III; Right to Read

ABSTRACT

This program, included in "Effective Reading Programs...," serves about 450 educationally disadvantaged children, aged from 3-5 years, and approximately 40 handicapped students, aged from 0-5 years. The overall goal of this project is to establish a partnership between school and parents for the purpose of educating preschool children. During the school year, community coordinators visit the homes of program children and give the parents learning activity packets designed to provide children with needed developmental activities. Every six weeks a reading party is held for program children and their parents in order to provide group learning experiences for the children and allow parents to discuss instructional ideas and techniques with the project staff. In addition, parents serve on curriculum committees that meet every three months. The locally developed curriculum is based on 38 instructional objectives and is divided into 48 activity packets and a summer activity packet. The curriculum is based on three levels of skill proficiency, including eight curriculum streams. (WR/AIR)

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRE
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

ED106804

south douglas county early childhood education project

THIRD YEAR EVALUATION REPORT

July 1, 1971 to September 30, 1974

CS 001 855

Title III ESEA 1971-1974 South Umpqua School District, Myrtle Creek, Oregon 97457

Prepared by

John D. Anderson, Ph.D.

Evaluator

The project reported herein was performed pursuant to grant no. OEG-0-71-1772 (290) from the U. S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

THIRD YEAR EVALUATION REPORT

July 1, 1971 to September 30, 1974

South Douglas County

Early Childhood Education Project

In 1975 this program was validated by the standards and guidelines of the U.S. Office of Education as successful, cost-effective, and exportable and endorsed for national dissemination by the Dissemination Review Panel.

TABLE OF CONTENTS

Background of the Project			1
Description of the Project			3
General Goals of the Project			6
Exploratory Objectives			6
Annual Goals			7
Progress of the Project			9
Basic Component - Instructional			9
Tables:	Instructional Objectives	10-12	
	Bench-Mark Performance	14-16, 25	
	Inter-Rater Reliability-Observer Judgement	19-20, 24	
	Participant Baseline Performance	33-35	
	Participant Progress Performance	35-39	
	Comparison of Participant Baseline	40-41	
	Comparison of Participant Progress	42-48	
	Comparison of Bench-mark and Participant Performance	49-51	
	Participant "Self-Concept"	55-56	
	Follow-up Reading Progress of Participants	60-61	
Specialized Component - Instructional			62
Tables:	Participant Performance	67-84	
	Description of Participants	85-87	
Basic Component - Teaching			88
Tables:	Teaching Objectives	89-90	
	Parent Survey Questionnaire Results	98-105	
	Synopsis of Parent Survey	106-108	

TABLE OF CONTENTS (Cont'd)

Basic Component - Teaching (Cont'd)

Community Coordinator Monitoring of Student Performance 112

Participant Use of Lessons 113

Participant "Reading Party" Attendance 114

Survey of Families Terminating Participation 114

Specialized Component - Teaching 115

Basic & Specialized Component - Management 117

Tables: Management Objectives 118

Inter-Rater Reliability - Selection of Community Coordinators 122

Rating of Community Coordinators 126

Community Coordinator Evaluation of Training 127-129

Summary of Management Accountability 131

Summary of Progress 132

Instructional - Basic Component 132

Instructional - Specialized Component 135

Teaching 136

Management 137

Cost Analysis 139

Implementation Evaluation 145

Program Assumptions and Goals 145

Personnel Selection 147

Operational Processes 154

Curriculum Development 155

The Supervisor of Community Coordinators 158

The Community Coordinators 160

Relationship between the Basic and Specialized Components 164

"Reading Parties" 166

Program Evaluation 168

BACKGROUND OF THE PROJECT

The South Douglas County Early Childhood Education Project was conceived as a result of a semi-formal assessment of the educational needs of children in the South Douglas County area conducted during the 1968-69 school year. The most apparent conclusion of this assessment was that a high percentage of students, as based on analyses prepared by teacher and community advisory groups, were entering school with performance abilities in cognitive, affective, and psychomotor areas far below the level of expectation for entering first-grade children.

This conclusion led to a more formal needs assessment and to more detailed planning during the 1969-70 academic year. District standardized achievement testing along with a detailed survey of learner and basic program needs formed the cornerstone of this second appraisal. Subsequent data, which showed that from one-third to one-half of the children in grades 1, 2, and 3 were performing within the lowest quartile in basic language and mathematical skill areas and that the drop-out rate of high school students ranged from 11 - 25% over the previous 5 years, were both startling and revealing. As a result, not only were specific programs and innovations injected into the regular elementary school process but also it was decided that the area of preschool education was vital to the overall goal of alleviating future educational learning problems. A traditional formal kindergarten was deemed too expensive and impractical a preschool program relative to the present and probable future economic capabilities of the school district.

Hence, an innovative and novel preschool pilot program, planned during the latter half of the 1969-70 school year, was implemented during the 1970-71 academic year. Twenty-seven children under the tutelage of a paraprofessional participated. The relatively lower cost per pupil, the enthusiastic response of the community, and the overwhelming success for the participating 4 and 5 year

old children led to the decision to incorporate a similar early childhood education program on a district-wide basis. Such a program was planned, funded under Title III - ESEA, and emerged as the South Douglas County Early Childhood Education Project.

DESCRIPTION OF THE PROJECT

The South Douglas County Early Childhood Education Project was designed to serve approximately 450 3, 4, and 5 year old children and about 40 handicapped children from birth to age 6 in three school districts located in southern Douglas County. The districts served were Days Creek, Riddle, and South Umpqua. The latter school district included the towns of Myrtle Creek, Canyonville, and Tri-City, Oregon. The region may be described as rural with lumbering, farming, and mining forming the economic base of the three communities.

There were three assumptions upon which the Project was based and from which the basic operational processes flowed. Firstly, it was assumed that parents could be adequate and efficacious teachers. This meant that any "failure" was construed as one of "program failure". Secondly, the program was designed to establish a parent and school partnership for the express purpose of encouraging and stimulating the educational growth and development of children. Combining this consideration and the first assumption, it followed that the school or educational institution in the community was a resource which should provide materials and services to the members of the community. In short, the function of the school became one of provision rather than imposition. And thirdly, it was the intent of the Project to maximize the individual differences and capabilities of each child who participated in the program.

The general process of the program, a consequence of the three aforementioned assumptions, was one of bringing ideas and materials, which were designed for varied and diverse learning experiences, to the homes of the participating families.

Within the basic component of the program, community coordinators - mothers residing in the respective communities which were served by the Project - were

housed in an office that was relatively central within the area. Once every two weeks, they visited the homes of participants families who resided within their school district. Their function revolved around presenting and explaining each learning package to the parents, assisting the parents in teaching the tasks if requested to do so, and suggesting additional materials and methods, already present in the home, which might be used to provide other learning activities for the participating children. The community coordinators participated in two weeks of preservice training just prior to the beginning of the Project operational year. In addition, they participated in weekly inservice training sessions on Friday afternoon throughout the operation of the program year. Beside the home visits, small group (6 - 8 person) reading "parties" were held each 6 weeks. Both parents and children and community coordinators met for a two-hour period at a school room or other community building within each local school district. The purpose of those group activities was to develop the ability to work and learn in other than an individual setting.

The component of the Project dealing with handicapped children, the specialized component, involved the same general process contained in the basic component outlined above. Initially, community coordinators visited the homes of children with special educaitonal needs two or three times a week. As parents and children became familiar with and comfortable in utilizing the learning procedures and materials provided by the program, home visits were provided on a weekly basis. Commensurate with the assumption that individual differences and capabilities of children would be maximized, participants were designated for this component of the Project in terms of educational skill deficiencies as opposed to physical or intellectual deficiencies. Also, parents maintained the primary selection role. That is, if a child's parents felt that he was unable to cope with the lessons provided by the basic component then specialized educational methods and materials, which provided the same learning experiences but in smaller and less complex steps, were provided. Children could also participate in this

component of the program exclusive of the basic component, if their parents so decided. Once again, the key concepts involved in the specialized educational component of the Project were parental selection and educational skill accomplishment.

The management staff of the Project consisted of a full-time project director, supervisor of community coordinators, and evaluator, along with a part-time curriculum designer. They provided the basic direction, development, and coordination of the Project instructional processes, curricular materials, and training experiences. It is important to note that participating parents controlled the educational processes incorporated into this Project. They determined both the kind of learning materials and the manner in which they were to be used, if they were to be used at all. And thus, one of the key functions of the management staff was that of insuring that learning activities, which were suggested by participating families, were incorporated into the Project curriculum.

The expected and hoped for outcomes of the Project were both immediate and future. Those immediate results were defined in behavioral terms and are outlined in more detail in subsequent sections of this report. But more importnatly, it was hoped that the processes and experiences which the program provided and engendered would lead to certain future outcomes which were less tangible than the immediate effects and more vital to the process of education. By involving both families and the community in the process of education and by evolving such an educational partnership, it was hoped that the focus and structure of the school would attempt to maximize the needs of individual children, and that children's patterns of success would be enhanced. It was also anticipated that after the curriculum and operational procedures had been refined and finalized, the Project would be operated almost exclusively by paraprofessionals from the community.

GENERAL GOALS OF THE PROJECT

Overall Goals - Exploratory Objectives

This aspect of the Early Childhood Education Project was designed to provide guidelines and to aid in monitoring the possible longitudinal results of the entire thrust of the program. The objectives relating to this element of the Project were considered to be hypotheses of desired outcomes. Hence, they were three- to five-year goals. Moreover, all of those objectives were interrelated and any given goal could not have been accurately evaluated in isolation

The overall goal of the Project was to establish a partnership between the school and the community. An initial endeavor in this regard accrued when the community coordinators began visiting the homes of the families who chose to participate. There were other goals delineated for the Project. Specifically those were that by the end of three years of operation:

positive attitudes toward education would be held by substantial members of the community;

an attitude of high aspiration - high achievement would be valued by much of the community;

the structure of the primary grade school would be such that it would readily adapt to the needs of individual children;

an atmosphere of acceptance of diversity and a questive attitude would be valued both in the home and in the school;

children's patterns of success would be enhanced;

a sense of competence, usefulness, and belongingness would be established among parents, children, and other members of the community;

and

an increase in reading readiness upon entering the first grade and an increase in reading achievement in the first grade and beyond would obtain.

Judging form the enthusiastic participation of families, the progress of participating youngsters, the particular kind of 4-week summer program for 5 year old children operated under the auspices of the Project, and the beginning efforts to articulate the basic ideology and processes of the Project into

primary grade classrooms in the South Umpqua School District, it may be concluded that some progress toward accomplishing the third, fifth, and sixth of the objectives was attained.

In July, 1972, the South Umpqua School District was designated as one of six national rural Experimental Schools sites by the National Institute of Education. The central thrust of that Project, as developed by the District, enveloped and enhanced the hopes and goals of the Early Childhood Education Project. Moreover, the Experimental Schools program involved the entire District and, consequently, all its educational programs. Because of the general framework within which those "exploratory" objectives were viewed, it would have been impossible to separate the effects of the Early Childhood Education program from those of Experimental Schools program efforts, with respect to achievement of those objectives. Moreover, many programs that had been developed under the aegis of the Experimental Schools Project, and that were designed to bear directly upon the above objectives, became operational in September 1973, just two years after the inception of the Early Childhood Education Project.

Thus, the progress toward accomplishing the first six of those "exploratory" objectives was not monitored within the scope of the Project evaluation.

Annual Goals

The objectives delineated for each year of Project operation and the state of their accomplishment are outliend below.

1. Write curricula for children at the three preschool levels served by the program.

   Forty-five lessons, 5 summer lesson packets, and 8 reading "party" activity packets have been prepared for students participating in the basic component at three age levels, at three levels of skill proficiency and organized into ten streams. The streams are: alphabet, reading readiness, mathematics, science, social studies, colors and art, coordination, shapes and patterning, music, and nursery rhymes.

   For the most part, commercially prepared materials are utilized in the specialized (handicapped) component. These materials provide learning experiences for children from birth to age 6.

2. Test, revise, and refine curricula for use in ensuing Project years.

The revision and refinement of learning activities for the ten curriculum streams has been completed. During the 1974-75 Project operational year, 4 additional reading "party" activity packets will be developed and field-tested. In addition, various resource kits, containing activities dealing with selected areas of learning such as electricity or geography, have been developed and field-tested for use as "resource" materials for participating families.

With regard to the specialized component, modification and adaptation of the curricula for use in the home by the parents of participating children is a continuous process.

3. Test and compare performance objectives against children's actual performance at each age and ability level.

Baseline, progress, and terminal data with respect to each child's accomplishment on all Project instructional objectives in the basic component has been gathered. In addition, monitoring of children's progress was done for 5 year olds who attended the 4-week summer program. The performance of each child was evaluated at least twice during the school year and at least once during the 4-week summer program.

For the specialized component, baseline data for successful performance on any given skill was collected when that skill was initially selected as a learning experience by the child's family. Monitoring of the youngsters' progress was conducted on a weekly basis.

4. Identify the most promising procedures, instruments, and techniques for continued operation of this program in its present setting, as well as those most promising for repication in similar and dissimilar settings.

This aspect of the Project evaluation is discussed in detail in the "Implementation Evaluation" section of this report.

5. Identify additional training needs of present teachers in the primary grades.

The summer program involved 5 year old children who participated in the project during the preceding year and served as the training environment for teachers (as well as a learning situation for children). The ideas, necessary attitudes, and required teaching processes utilized in maintaining a learning center, diagnostic-prescriptive, student and teacher directed classroom were deemed to be necessary in order to articulate the primary grade curriculum and classroom structure with the preschool learning experiences. Not only will these same facets of the process of education be instituted in the 1974 summer program but also a uniform curriculum and evaluation guide will be initially developed and field tested during the 1974-75 operational year.

PROGRESS OF THE PROJECT

Basic Component - Instructional

There were 38 instructional objectives that constituted the central thrust of this section of the program (see Table BII). At this time, the following kinds of data were available:

* Bench-mark data concerning the accomplishment of first grade children, who have had little or no coordinated preschool education program, on the Project instructional objectives.

* Reliability data involving the universality of interpretation of the 38 Project instructional objectives.

* Baseline data regarding the level of accomplishment on the Project instructional objectives for all 3, 4, and 5 year old children participating in this section of the program for one, two, or three years.

* Progress data with respect to the accomplishment of instructional objectives for all 3, 4, and 5 year old children participating in this facet of the program for one, two, or three years and 5 year old youngsters who participated in the summer program.

Table BI1

EARLY CHILDHOOD EDUCATION PROJECT
INSTRUCTIONAL OBJECTIVES
BASIC COMPONENT

Cognitive Objectives

8. to use crayons to draw a human figure without copy which includes a head, body, arms, and legs in their proper relationship;

9. to recite the alphabet from memory giving all 26 letters in the proper order. Mistakes in order or pronunciation, if any, must be spontaneously corrected by the child;

10. when shown an individual letter or when asked to select a letter from a field of 3-5, the child will be able to correctly name each of the 26 upper case letters. Mistakes in naming, if any, must be spontaneously corrected by the child;

11. to correctly print his first name using the alphabet letters contained in the Noble & Noble alphabet chart;

12. to consecutively count out loud each of 10 identical small objects, e.g., buttons, pennies, blocks, fingers, without error;

13. when shown an individual number or when asked to select a number from a field of 3, 4, or 5 objects, the child will be able to correctly name each of the numbers 1-10. Mistakes, if any, must be spontaneously corrected by the child;

14. to write each of the numbers 1-9, not necessarily in order or all at one time. A mistake, if made, must be spontaneously corrected by the child;

15. to correctly indicate right and left in at least 2 directional tasks. The tasks might include such activities as "raise your_____hand" or "put this on the_____side of the table" and must be done without the aid of peers;

16. to correctly pronounce the compound consonants in each of the following words by naming pictured objects or reciting verses that contain: basket, bottle, tree, green, thank, please, sister, brother, school, and charm indicating that baby talk is gone;

17. when shown an individual color or when asked to select a color from a field of 4, the child will be able to name each of the 8 basic colors, i.e., red, blue, green, yellow, orange, purple, black, and brown from crayons, pictures, or in nature;

18. to demonstrate the meaning of familiar positional words in terms of use, e.g., when asked to crawl under a table, the child can do so. The child must be able to demonstrate the meanings of at least 7 positional words: on, off, under, over, between, up, and down;

19. to be able to follow a sequence of at least 4 verbal directions such as, "go over to the table, pick up the cup, bring it back here, and then sit down." Mistakes, if any, must be spontaneously corrected by the child;

22. to tell his own first and last name and residence address including street, house number, city, and telephone number. Mistakes, if any, must be spontaneously corrected by the child. (Rural residents may give mailing address or directions that would enable someone to locate the home);

27. to recite a simple verse or sing a song of 4 lines or more. This task could be accomplished by reciting a nursery rhyme to someone else;

29. to tell a simple story of at least 3 sentences. The story may be one which has been told to him or one which he creates. The story may be told to another individual or in a small group (3-6 persons) situation.

Social Skills Objectives

20. to wash his hands and face without help such that they are clean;

21. to care for self at each toilet, requiring no assistance with paper or clothing;

24. to be able to participate in a project conceived by him or one suggested by someone else, e.g., make a scrapbook, to define the structure and content of the project, and to complete that project to his satisfaction;

25. to dress self unaided on at least two occasions including fastening buttons and zippers completely and getting shoes on appropriate feet but not necessarily tying ribbons or other types of drawstrings;

28. to sit and listen to a story told or read to a group of 3-6 children for a period of at least 5 minutes such that the activity is not disrupted;

30. to share things such as toys, books, and crayons with other children. The child must give up the object to another child or adult when requested without hitting or crying. The second child or adult must willingly give the object back to the original child, or if requested by that child. This type of behavior must occur at least twice;

31. to take turns getting drinks, using materials, and entering buildings and vehicles. The child must allow others to precede him or offer to others in the group to precede him and he must precede others if such opportunity is offered to him. This behavior should occur such that the child is not always last nor always first and should occur at least twice. The child must not hit, push, or engage in other kinds of disparaging behavior;

32. to take a leadership role in play with other children rather than an authoritarian role (i.e., pushing, bossing, bullying), instructing or helping them in games or other activities which continue for at least 5 minutes. This behavior must occur at least twice;

33. to join cooperatively in imaginative play with other children, e.g., play tea parties, keeping store, hospital visits, play school, and building roads, garages, or fire engines. The child must both receive and carry out suggestions given by other group members as well as give suggestions to the group. This behavior must occur at least twice;

34. to play competitive games with other children and keep the rules of such games as hop-scotch or hide-and-seek. The activities must continue for at least 5 minutes and the behavior should occur at least twice;

35. to play simple table games requiring taking turns and keeping rules such as Tiddly-winks, Old Maid, Checkers, Dominoes, or Tic-tac-toe. The activities must continue for at least 5 minutes and the behavior should occur at least twice;

36. to keep simple safety rules required to play. To attain the objective, the child in at least two such situations, must not display behavior that would be injurious to another child;

37. to travel alone in the neighborhood (2 blocks) to a store, the school or the school bus stop, a playground, or to a friend's home at least twice;

38. to be away from parents for a period of at least 1 hour in a group activity situation without being upset or apprehensive. In order to accomplish this objective, the child should not cry out or ask for his parent who placed him in that situation and should participate in the group activity for a period of at least 5 minutes. This behavior should occur at least twice.

Psycho-Motor Skills Objectives

1. to hop on 1 foot for at least 2 consecutive hops;

2. to skip, using feet alternately, for at least 3 consecutive skips;

3. to stand on 1 foot for 10 seconds without the other foot touching;

4. to stand on each foot, alternately, with eyes closed for 5 seconds without the other foot touching;

5. to walk continuously for 3 yards on toes without touching heels on floor;

6. to cut out 2 plane figures, one with at least 1 curved line and the other with at least 1 straight line;

7. to tie a shoelace in an ordinary bow knot which, when pulled apart, will not form a new knot;

23. to be able to use paste materials such that the pasted objects do not fall off the backing material when dry;

26. to open simple cartons such as small school milk cartons, packages, bottles unaided and without spilling the contents.

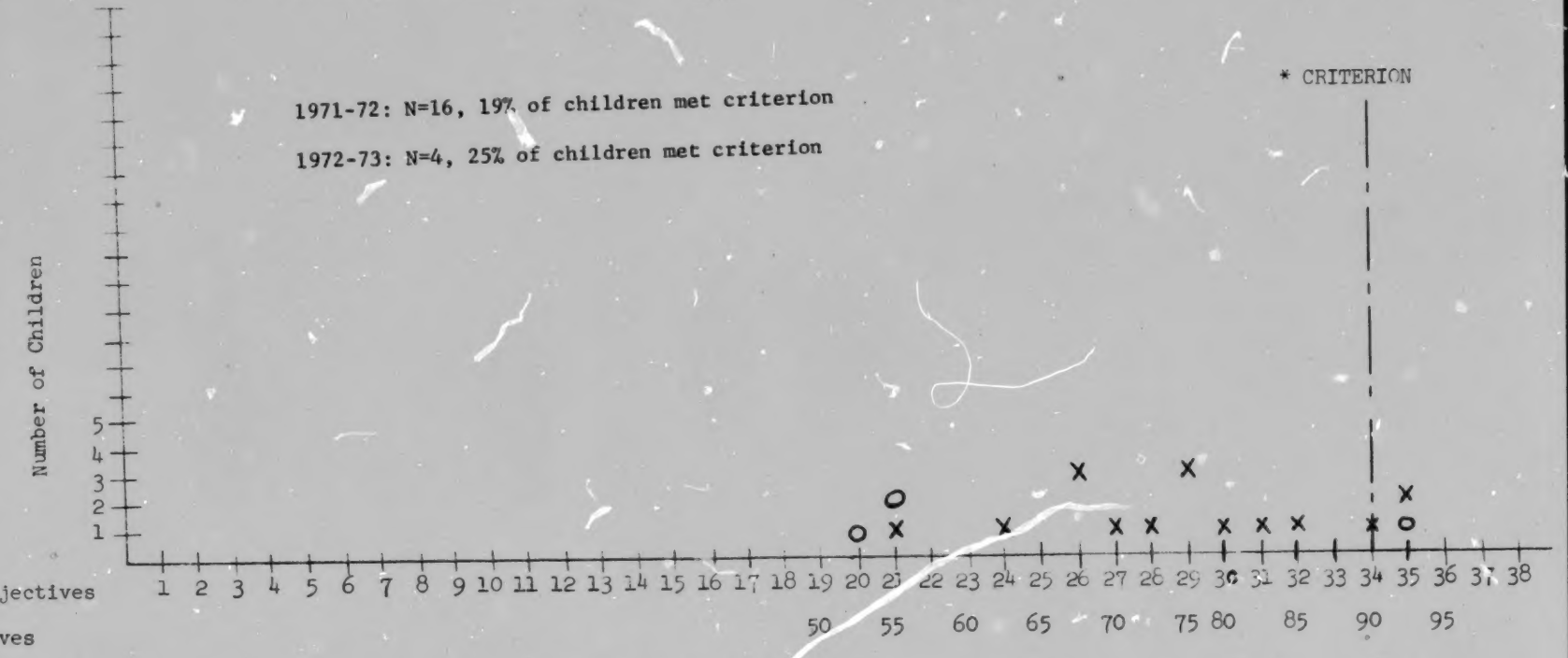
Bench-mark Data

Bench-mark data on first grade children attending school during the 1971-72 and 1972-73 academic year in each of the three participating school districts, and who had no concerted preschool education program, is displayed in Tables BI2A, BI2B, and BI2C. The horizontal line on those graphs indicated the total number of instructional objectives successfully accomplished and the vertical line indicated the total number of children who had successfully accomplished a given number of skills. Student performance of the 38 objectives was judged by their respective classroom teachers. Those data clearly demonstrated the fact that the majority of skills for which the Project is committed to teach are not mastered in the absence of such a program. It can be seen that all first graders could successfully perform at least 20 tasks (Days Creek), 22 tasks (Riddle), and 7 tasks (South Umpqua) in 1971-72. This was generally the case in 1972-73 as well. Moreover, the Early Childhood Education Project established the criterion that all children who participated in the program for 3 years would be able to successfully perform 90% of the objectives. The tables indicated, respectively, that only 3 (19%), 20 (44%) and 16 (12%) of the children met that criterion in 1971-72, and that only 1 (25%), 13 (50%). and 26 (46%) of the youngsters met that criterion in 1972-73. It was important to note that most children in the Riddle School District (Table BI2B) had been involved in a preschool education experience for a period of three to eight months prior to entering the first grade and that in the South Umpqua School District some permeation effect may have been occurring. However, that the need for such a program and that considerable room for accomplishment by the Project existed, was manifest.

TABLE BI2A

DAYS CREEK SCHOOL DISTRICT

Baseline Performance of First Grade Children on the Early Childhood Education Project Instructional Objectives - Basic Component



* All children who participate in the Project for 3 years will be able to perform 90% of the instructional objectives.

Key:

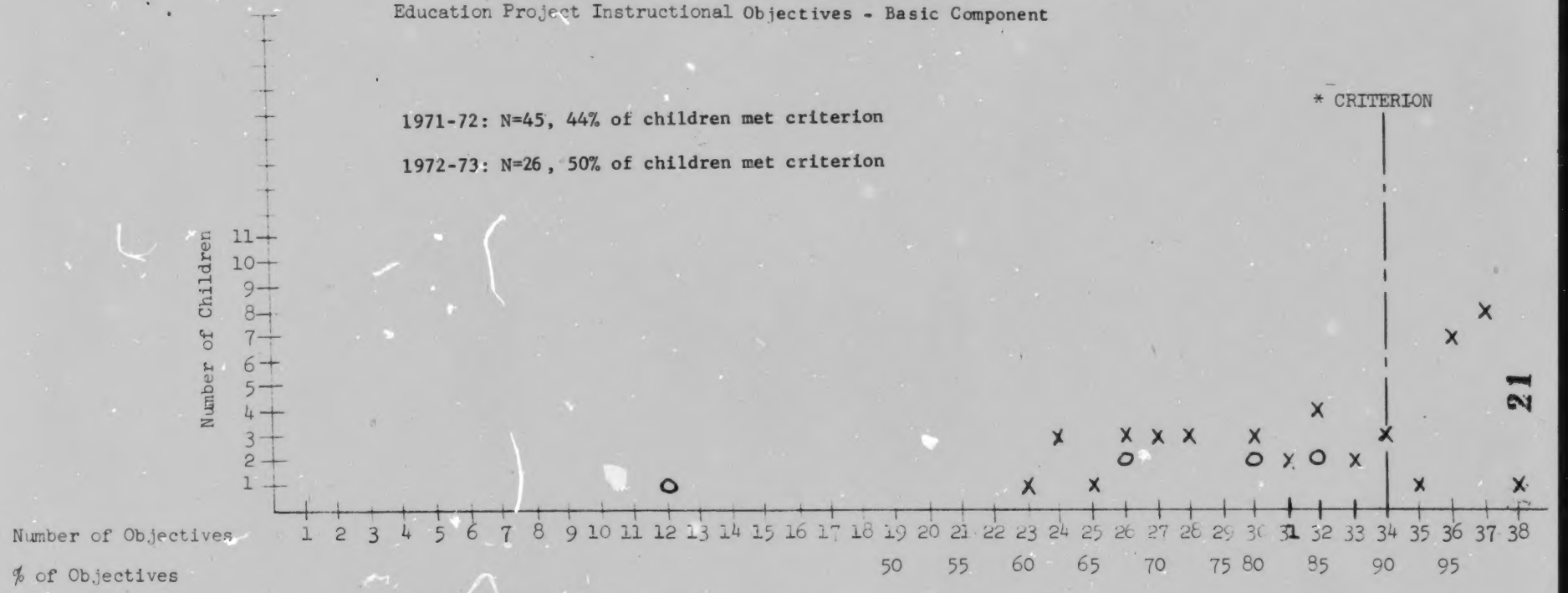
X = 1971-72

0 = 1972-73

TABLE BI2B

RIDDLE SCHOOL DISTRICT

Baseline Performance of First Grade Children on the Early Childhood Education Project Instructional Objectives - Basic Component



* All children who participate in the Project for 3 years will be able to perform 90% of the instructional objectives.

Key:

X = 1971-72

O = 1972-73

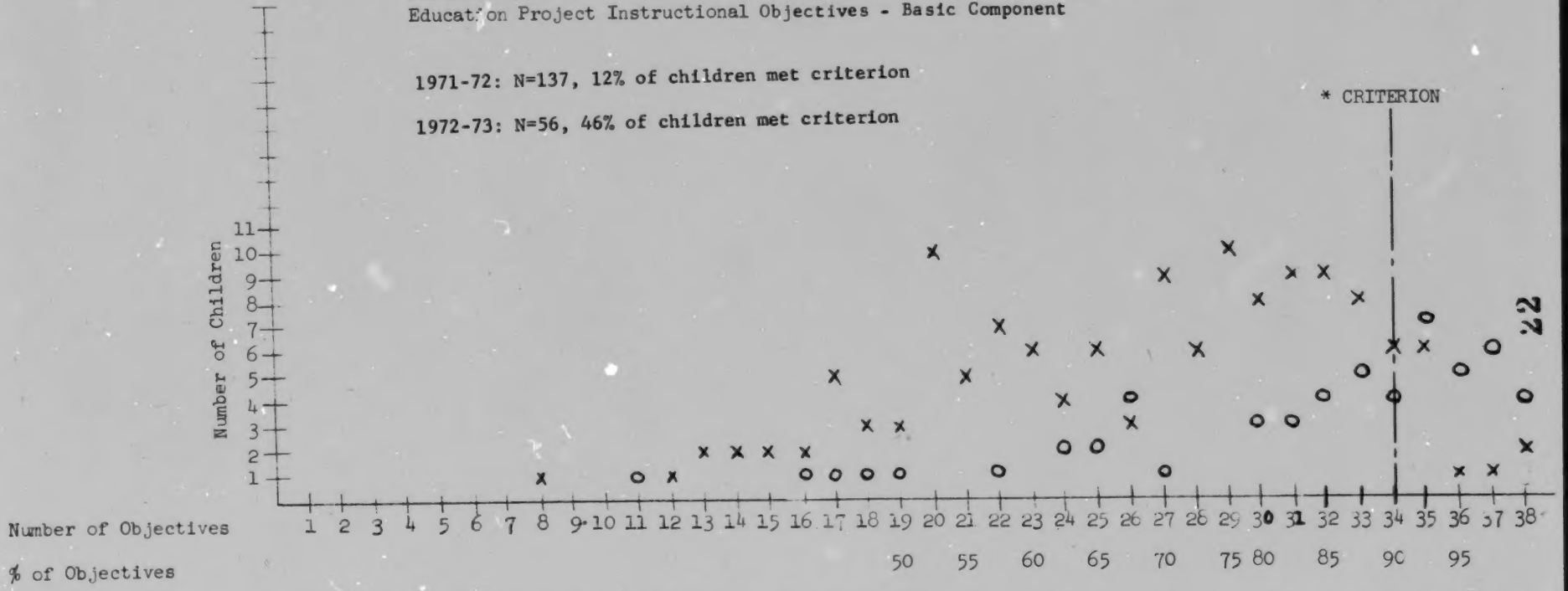
TABLE BI2C

SOUTH UMPQUA SCHOOL DISTRICT

Baseline Performance of First Grade Children on the Early Childhood Education Project Instructional Objectives - Basic Component

1971-72: N=137, 12% of children met criterion

1972-73: N=56, 46% of children met criterion



* All children who participate in the Project for 3 years will be able to perform 90% of the instructional objectives.

Key:

X = 1971-72

0 = 1972-73

The Reliability Study

In conjunction with the assessment of first grade youngsters currently enrolled in the participating school districts, a study of the reliability of observational judgments using the Student Behavioral Checklist (SBC) was conducted during the first year of operation of the program. That was made possible by the fact that three first grade classrooms utilized half-time teachers - one in the morning, the other in the afternoon. Each half-time teacher independently rated each of the children in her classroom on selected objectives. The results are presented in Table BI3.

Since the various statistical tests that were used in the data analysis were not independent and since it was desired that the overall level of significance be kept at $p \leq .05$, each test was made at a level of significance of $p \leq .001$. When viewed as a whole, a Z-test used to approximate binomial probabilities showed that there was significantly more agreement than disagreement, agreement "yes" than "no", and agreement "yes" than disagreement in judgment among the pairs of raters than would be expected on a "chance" (i.e., $p = .5$) basis. As might be expected from those outcomes, there were significantly more scores above the median (i.e., high scores) than below the median. There were also significantly fewer agreements "no" than disagreements. Comparisons between the groups of raters using a Z-test to compare the simlarity of population proportions generally showed that group 1 was different from groups 2 and 3 whereas the judgment patterns between groups 2 and 3 were usually similar. The raters who comprised group 1 had significantly fewer agreements than disagreements, agreements "yes" than disagreements, and agreements "no" than disagreements. This group also had significantly more agreements "yes" than agreements "no" when compared to the other two groups. Closer inspection of the data from group 1 revealed that one judge indicated a "yes" judgment almost twice as frequently

as the other. This would account for the findings as presented since this judgement pattern would increase the chance for disagreement, limit the chance of agreement, and narrow the field of agreement (when it did occur) to a "yes" judgment. Just why this judgment pattern occurred in the case of group 1 is open to speculation.

In viewing this reliability study from an overall perspective it seemed that while the number of agreements between the judges was high, this tended to occur when judging success. There appeared to be some reluctance on the part of the observers to judge lack of success. It would appear that there is a tendancy to overrate the accomplishemnt of first grade youngsters on this set of performance objectives.

Further consultation with the teachers who participated in this study, as well as consultation with the teachers and community coordinators who were involved in the 4-week summer program during the 1971-72 operational year, revealed that the data gleaned from the study was accurate. That is, there was disagreement in interpretation of the instructional objectives. To counteract the effects of this problem, the objectives were evaluated by first grade teachers, community coordinators, and the Project auditor during 1972-73 operational year. The kind of test question or task and the criteria for success were specifically delineated for each instructional objective to the satisfaction of all persons involved.

TABLE BI3

Analysis of Instructional Objectives - Basic Component
Inter-Rater Reliability

AGREEMENT vs. DISAGREEMENT

	Group 1	Group 2	Group 3	Total
Agree/Total Judgments	285/ 483	246/ 308	286/ 324	817/ 1115
	Z_{12}=-6.09*	Z_{23}=-2.89	Z_{13}=-8.96*	Z_T=15.54*

AGREEMENT "YES" vs. AGREEMENT "NO"

	Group 1	Group 2	Group 3	Total
"Yes"/Total Agree	259/ 285	198/ 246	254/ 286	711/ 817
	Z_{12}=3.45*	Z_{23}=-2.68	Z_{13}=0.82	Z_T=21.16*

AGREEMENT "YES" vs. DISAGREEMENT

	Group 1	Group 2	Group 3	Total
"Yes"/"Yes"+ Disagree	259/ 457	198/ 260	254/ 292	711/ 1009
	Z_{12}=-5.22*	Z_{23}=-3.30*	Z_{13}=-8.71*	Z_T=13.00*

AGREEMENT "NO" vs. DISAGREEMENT

	Group 1	Group 2	Group 3	Total
"No"/"No"+ Disagree	26/ 224	48/ 110	32/ 70	106/ 404
	Z_{12}=-6.62*	Z_{23}=-0.27	Z_{13}=-6.26*	Z_T=-9.54*

* $p \leq .001$

TABLE BI3 (cont'd)

HIGH vs. LOW SCORE

	Group 1	Group 2	Group 3	Total
Scores/Total > Md. / No. of Scores	18/21	11/14	18/18	47/53
	Z_{12}=0.55	Z_{23}=-2.06	Z_{13}=-1.67	Z_T=5.63*

* $p \leq .001$

Student Performance as Related to Curriculum Development

The analysis of inter-rater reliability of observational judgment, and the collection of bench-mark data concerning the successful performance of first grade youngsters on the Project instructional objectives, was also used to determine which, if any, skills were learned by most children without having participated in a preschool program. For those objectives, then, no direct instruction would be warranted. The results of that analysis for the 1971-72 Project operational year are included in Tables BI4A & BI4B. Two criteria were utilized. One involved successful performance on the part of the children, viz., 90% or more could successfully perform the skill. The other involved the inter-rater agreements, viz., the number of agreements had a less than .005 chance of occurring. In that latter case, the individual level of significance was purposely set very high in order to control the overall level of significance at $p \leq .05$. The number of "don't know" responses was also considered to be important. The critical area for that aspect of the analysis was set at 10% or more such judgments.

It may be seen from Tables BI4A & BI4B that objectives 20, 21, 25, 28, 30, and 38 were successfully performed by 90% or more of the 1971-72 group of first grade children in each of the participating school districts, and there was also a high degree of agreement in judgment among the raters. Moreover, objectives 1, 3, and 5 were successfully performed by most first graders. For those 9 objectives, then, no direct instructional activities would necessarily be provided by the Project. However, those skills have been deemed important for children as they become involved in a formal process of education and so were monitored by the program, particularly with regard to 5 year old children. If needed, direct instruction was provided on a personalized basis. Certain of the objectives, as may be observed in Table BI4A, received a high number of "don't know" judgments. That indicated that more refinement was necessary with respect to the wording of the objective or perhaps that a more specific test of the skill was required.

For the objectives which fell within the critical rejection region and did not have a significant number of "agreement" judgments, viz., numbers 6, 10, 17, 27, 32, and 34, the criterion of successful accomplishment for any individual child was made more stringent.

An analysis between sets of bench-mark data, collected during the month of September (the first month of school) for the 1971-72 and 1972-73 years of Project operation, revealed that the performance of those children who had not participated in a concerted preschool education program remained relatively consistent (see Table BI4B). There were, however, some differences between the two groups. Those differences occurred on objectives 6, 12, 17, 18, 23, & 29 and revealed that the percentage of accomplishment was beyond the criterion. Only two of those differences were significant, however, as evidenced by a Z-test of differences in proportions. Utilizing that same test, certain other significant differences appeared, as well, on objectives 9, 10, 11, 15, 19, 35, and 37. For only two of those objectives did the percentage of success closely approach the criterion of accomplishment; for the remainder of those objectives, the percentage of success was considerably below the criterion. Much of the significant difference in percentage of success was attributed to the refinement of the evaluation procedures over the two years of the program, particularly with regard to better delineation of the test procedures and the type of testing task to be used in monitoring children's skill levels. More work of this nature, however, remained to be done as evidenced by the high number of "no observation" judgments on objectives 24, 26, 27, & 31-37.

In order to summarize the results of those bench-mark evaluations and to provide a consistent basis with which to make comparisons between the accomplishment of the general populace, the two sets of data were amalgamated. The combined results generally paralleled the conclusions drawn from the data collected during the Fall of 1971. Those data have formed the basis for the

development of lesson activities and reading "party" activities designed to teach the skills and behaviors required for the accomplishment of objectives 2, 4, 7-11, 13-19, 22, 24, 26, 27, 29, & 31-37. Those activities have been distributed to all participating families as part of the general Project curriculum. Those activities designed to teach the skills and behaviors required for accomplishment of objectives 1, 3, 5, 6, 12, 20, 21, 23, 25, 28, 30, & 38 have been provided to participating families on a personalized basis as the needs of individual children have dictated.

Table BI4A

Analysis of Instructional Objectives - Basic Component
Critical Rejection Region for Direct Instruction
1971-72

Objective Number	Inter-Rater Reliability: No. of Paired Observations	No. of Agreements*	No. of Disagreements*	Overall No. of "Don't Know" Ratings##
1				
2				
3				
4				
5				
6	35	23	12	1
7	32	27 *	5	6
8	35	30 *	5	3
9	53	50 *	3	1
10	32	17	15	9
11	53	39 *	14	
12	32	26 *	6	
13	18	18 *	0	
14	18	18 *	0	
15				15
o 16	14	13 *	1	
17	32	17	15	7
o 18				
o 19	21	16 *	5	1
20	53	49 *	4	1
21	53	50 *	3	
22	14	13 *	1	12
23	53	45 *	8	2
o 24	35	16	19	56 ##
25	35	32 *	3	3
26	21	1	20 *	10
27	35	23	12	2
28	35	29 *	6	
29	21	20 *	1	6
30	53	49 *	4	
31	53	42 *	11	16
32	39	18	21	19
33	39	17	22	21 ##
34	39	18	21	13
35	53	29	24	58 ##
36	35	15	20	32 ##
o 37	21	7	14	43 ##
38	53	50 *	3	1

N = 216
o N = 198

* Criterion: $p \leq .0005$

Criterion: $N \geq 10\%$

TABLE BI4B
Analysis of Instructional Objectives - Basic Component
Performance of Children Not Participating in
a Concerted Pre-School Education Program

Objective	1971 % of Successes[1]	1972 % of Successes[2]	% Difference[3] (1972-1971)	Revised Bench-Mark % of Success	Revised Bench-Mark % of "No Observation"
1	98*	99*	1	98*	
2	77	81	4	78	
3	92*	94*	2	92*	
4	64	78	14	68	
5	98*	95*	- 3	97*	
6	69	94*	25**	76	1
7	78	84	6	79	2
8	75	85	10	77	2
9	46	67	21**	52	1
10	27	57	30**	36	4
11	69	88	19**	72	1
12	84	92*	8	86	1
13	69	80	11	73	1
14	60	74	14	64	1
15	45	74	29**	53	7
°16	83	79	- 4	87	3
17	78	93*	15	82	3
°18	76	97*	21**	87	1
°19	54	87	33**	68	1
20	97*	99*	2	98*	1
21	97*	98*	1	97*	1
22	34	52	18	39	6
23	82	95*	13	86	1
°24	48	50	2	50	33#
25	94*	93*	- 1	94*	1
26	87	80	- 7	80	20#
27	75	71	- 4	71	29#
28	94*	99*	5	95*	
29	77	92*	15	81	3
30	93*	95*	2	94*	
31	87	72	-15	72	27#
32	55	70	15	70	26#
33	75	79	4	79	20#
34	79	78	- 1	78	21#
35	59	78	19**	78	21#
36	78	78	-0-	78	21#
°37	67	43	-24**	60	23#
38	95*	98*	3	96*	1

1 N=196 for all ° objectives
N=216 for all other objectives
2 N=86 for all objectives
3 $X^2=46.847$, $p > .01$
* Criterion: $\geq$ 90%
** Criterion: $p \leq \pm .001$
# Criterion: $\geq$ 10%

Student Performance on Instructional Objectives

Representative Accomplishment

Table BI5A displays the proportion of youngsters within each group, for each of two years, that successfully performed the objectives at entry into the program. Differences in the performance of each of the 9 groups were analyzed within each group between each of the two years; for the third-year participants, differences were analyzed between the 3 year only and the 3 year plus summer groups. Each difference was tested using a Z - test for differences between proportions at an α - level of .0001. That level of significance was choosen in order to maintain the overall α -level at .05. Very few differences in baseline accomplishment were found within any age groups on the objectives. Thus, the proportions were averaged in order to form a single set of baseline data for each of the nine groups. If a significant difference was manifested on a particular objective within any of the age groups between the two years, the proportion of accomplishment for the 1973-74 operational was used since by that year the evaluation procedures and instruments had been refined. Hence, it was assumed, of the observations made with respect to the accomplishments of participants over the three years of the operation of the Project, that those that were made during the 1973-74 year would be the most reliable and accurate.

The next step in the derivation of the baseline performance of participants consisted of analyzing the differences in the proportion of accomplishment between the single set of baseline data for groups that entered the program at the same age - first-year 3 year old, second-year 4 year old, third-year 5 year old children; first-year 4 year old and second-year 5 year old children; first-year 5 year old children. Very few significant differences were found using a

Z - test for differences in proportions at the .0001 α - level of significance. When such differences were found the particular objective for a given age group was "flagged" as being subject to variability of performance rather than relatively stable. The results of the analysis, and the commensurate baseline data, are displayed in Table BI5B.

Tables BI6A and BI6B display the progress data for participants as gathered at the time of their termination from the program. Differences in performance between each of the two Project operational years, within a given age and length of participation group, were analyzed using a Z - test for differences between proportions at an α - level of .0001. When significant differences were found between the proportion of children accomplishing a particular objective within a given age/length of participation group, the proportion of accomplishment from the 1973-74 year was selected as representative. When no significant differences were manifisted, the two proportions were averaged in order to derive a representative proportion of accomplishment for a given age/length of participation group. That representative accomplishment is depicted in Table BI6B.

Comparison of Student Accomplishment

The process of deriving a representative picture of student accomplishment at entry into the program established the fact that all length of participation groups, who entered the program at the same age, began that participation on an essentially equal basis. There were, however, differences in baseline performance that directly parrallelled differences in the age of participants at entry into the program. As may be seen in Table BI7A, there was a direct relationship between age and initial level of accomplishment.

From an overall perspective, 4 year olds entered at a higher level than 3 year olds (about 9% on the average) and 5 year olds entered at a higher level than 4 year olds (about 8% on the average) and the amount of difference was the

same. Viewing the initial level of accomplishment from the perspective of groups of objectives(see Table BI1) brought to light other evidence of differences. Within the set of cognitive skills (objectives 8-19, 22, 27 & 29), the initial level of performance between different age groups of youngsters was in the expected direction (i.e., 4 year olds higher than 3 year olds; 5 year olds higher than 4 year olds) but the amount of difference narrowed. On those 15 cognitive objectives, 4 year olds performed about 15% higher than 3 year olds but 5 year olds performed only about 8% higher than 4 year olds. Within the set of social skills objectives (objectives 20, 21, 24, 28 & 30-38), the initial level of performance was in the expected direction. However, within that group of objectives, an interesting outcome was noted. The initial performance of 4 year olds was almost identical to that of 3 year olds on the subset of social skills that involved behavior in a group (objectives 28 & 30-37); the initial performance of 5 year olds was higher than that of 4 year olds on those skills involving social behavior within a group. Within the set of psycho-motor skills (objectives 1-7, 23 & 26), the initial level of performance between different age groups was in the expected direction and the same trend toward narrowing the amount of difference, as was noted for the cognitive skills, occurred; 4 year olds were about 10% higher than 3 year olds and 5 year olds were only about 5% higher than 4 year olds. Table BI7B depicts those relationships.

Table BI7C displays the accomplishments of particular age/length of participation groups as compared to their appropriate baseline at entry into the program. Thus, first-year 3 year old, second-year 4 year old, and third-year 5 year old participants were compared to the 3 year old baseline data, first-year 4 and second-year 5 year old participants were compared to the 4 year old baseline data, and so on. Two outcomes were apparent from those data. One was that there was a direct relationship between accomplishment and length of participation. The other was that there appeared to be more variability in the

performance of first-year 4 and 5 year old participants than in the performance of first-year 3 year old, second-year 4 and 5 year old, and third-year 5 year old participants. Over all objectives, a lesser average proportion of first-year 4 and 5 year old children demonstrated accomplishment at the end of the year than at the beginning of the year. On the other hand, a significantly greater average proportion of first-year 3 year old and of second- and third-year 4 and 5 year old participants demonstrated accomplishment at the end, as compared to the beginning, of their participation in the program. With regard to that latter group, there was a direct relationship between an increase in age/length of participation and an increase in the overall average proportion of youngsters demonstrating mastery of the objectives. It seemed as if children who entered the program at age 4 or 5 and remained for only one year were different from those children who entered the program at age 3 and remained for a year or those youngsters who entered at age 3 or 4 and remained for two or three years.

Tables BI7D and BI7E display the accomplishments of particular groups of participants holding either the age of participants constant and analyzing the effect due to length of participation (Table BI7D), or holding the length of participation constant and analyzing the effect on performance attributable to age (Table BI7E). From Table BI7D, it may be seen that three years and a summer, three years, two years and a summer, and two years of participation result in a greater proportion of youngsters demonstrating proficiency on most of the individual objectives and over the entire set of objectives (see comparisons I, II, VI, VII, X, XI, XIII, XIV, & XVI). Within that set of comparisons, the group which had participated for a longer period of time manifested a 28 - 42% greater average proportion of participants demonstrating accomplishment over all objectives; in addition, in those instances wherein a lesser proportion of greater length of participation children manifested accomplishment on a particular objec-

tive, those proportional differences were within expected limits of variation. Also from Table BI7D, it may be seen that an additional summer (comparisons V & XII,), or an additional year (comparisons IV, VIII & IX), or an additional year and a summer (comparison III) after the second year of participation did not enhance the effect of length of participation on accomplishment of the set of 38 objectives. In other words, it appeared as if the effect of greater length of participation leading to increased accomplishment reached a maximum level after two years or two years and a summer of involvement in the program.

The analysis of the effect on performance of the instructional objectives due to an increase in age (see Table BI7E) revealed two additional outcomes. One was that the effect of an increase in age on an increase in performance was much less than the effect of length of participation. The other was that the effect of age operated in a differential manner. Older children exhibited mastery of the social skills (objectives 20, 21, 24, 28, & 30-38) to a lesser degree than younger children, mastery of cognitive skills (objectives 8-19, 22, 27 & 29) to a greater degree than younger children, and the effect due to age on the exhibited mastery of psycho-motor skills (objectives 1-7, 26 & 28) was mixed.

Table BI8A displays the accomplishment of groups of 5 year old participants, differentiated by length of participation, compared to children in the first month of participation in the first grade who had no concerted preschool education program, i.e., the bench-mark group. As was observed in the comparisons of accomplishment between program participants, the length of participation effect was not as great for first-year children as it was for second- and third-year participants, and the effect was about the same for second- and third-year participants. Over all 38 objectives, first-year participants demonstrated an average proportion of mastery of the objectives at a level of 35% or more below the

bench-mark group; for second- and third-year participants, the average proportion of mastery was 5-9% below that of the bench-mark. The differences in performance between the bench-mark group and 5 year old program participant groups were also analyzed with performance on objectives 1, 3, 5, 20, 21, 25, 28, 30 & 38 omitted. (Those 9 objectives were successfully performed by 90% or more of the students in the bench-mark group.) The results of that analysis, when viewed over the entire scope of 29 objectives, showed that first-year participants performed much below the bench-mark group while second- and third-year participants performed at a level equal to the bench-mark.

Table BI8B depicts the performance of the bench-mark and third-year program participant groups in terms of the number of objectives mastered by individuals (as opposed to proportion of individuals mastering a given objective). The data manifested the fact that the third-year plus summer participation group not only performed in a manner different from the bench-mark group but also came much nearer to meeting the criterion of all individuals mastering 90% or more of the objectives. The proportion of third-year plus summer participants that met that criterion was significantly greater than the proportion of bench-mark youngsters that met that criterion ($Z = 6.934$, $p \leq .0025$). The proportion of third-year plus summer participants that met that criterion was also significantly greater ($p \leq .0025$) than the proportion of third-year, second-year plus summer, second-year, first-year plus summer, and first-year participants that met that criterion. In addition, none of those latter groups significantly outperformed one another or the bench-mark group in terms of total number of objectives mastered.

Finally, Table BI8C depicts the performance of all groups of program participants and the bench-mark group in terms of the average proportion of children that successfully mastered groups of objectives. This table manifests the following phenomena:

* Disparity in average accomplishment over the 3 groups of objectives decreased with an increase in the age of participants.

* Length of participation in the program was directly related to accomplishment of all 3 groups of objectives.

* The effect of length of participation on accomplishment of the 3 groups of objectives continued through three years and a summer of participation; however, the intensity of the length of participation effect began to taper off after two years of participation, particularly on the cognitive and social skills groups of objectives.

* There appeared to be an indirect relationship between increased age and average performance on the social skills objectives, a direct relationship between increased age and performance on the cognitive skills objectives, and a mixed relationship between increased age and performance on the psycho-motor skills objectives.

* The Project appeared to have a greater impact on first-year 3 year old and second- and third-year 4 and 5 year old participants than on first-year 4 and 5 year old participants.

Table EI 5A

Performance of Children on Instructional Objectives - Basic Component
BASELINE Performance of Groups of Participants at Entry Into Program
Differentiated by Age and Length of Participation

OBJECTIVE	% SUCCESS FIRST-YEAR PARTICIPANTS						% SUCCESS FIRST-YEAR + SUMMER	
	3 YEAR OLDS		4 YEAR OLDS		5 YEAR OLDS		5 YEAR OLDS	
	1972-73	1973-74	1972-73	1973-74	1972-73	1973-74	1972-73	1973-74
1	23	72	29	53	65	47	29	57
2	9	-0-	20	23	40	32	18	7
3	3	24	6	29	70	42	24	64
4	3	-0-	17	-0-	40	16	18	7
5	40	80	34	67	75	45	32	57
6	3	36	23	43	60	66	32	64
7	3	-0-	9	17	65	39	9	21
8	3	4	9	10	40	13	18	29
9	-0-	8	6	20	25	51	12	21
10	-0-	-0-	6	17	35	16	21	14
11	-0-	-0-	20	20	50	55	65	29
12	23	8	60	40	75	82	74	57
13	-0-	4	11	20	50	45	38	21
14	-0-	**	6	**	15	**	12	**
15	40	4	34	23	75	55	50	21
16	63	20	66	33	65	66	47	50
17	6	8	34	30	70	71	59	43
18	46	24	71	37	70	66	50	50
19	60	16	63	37	70	63	71	43
20	**	32	**	50	**	37	**	64
21	**	32	**	47	**	8	**	64
22	-0-	4	3	-0-	10	8	9	-0-
23	94	36	83	63	85	87	76	79
24	46	8	51	17	45	39	35	21
25	**	8	**	**	**	**	**	**
26	74	44	60	50	80	61	65	57
27	11	20	23	17	40	45	38	36
28	80	20	54	53	70	61	65	57
29	57	4	37	23	60	21	50	29
30	66	48	49	67	65	63	65	57
31	66	48	40	60	70	63	71	57
32	26	20	11	10	50	29	47	29
33	34	32	34	57	50	47	56	50
34	17	40	26	43	45	39	47	64
35	14	44	11	57	5	82	21	57
36	14	52	14	50	35	34	41	50
37	**	16	**	13	**	29	**	7
38	**	28	**	57	**	37	**	64
	N=35	N=25	N=35	N=30	N=20	N=38	N=34	N=14

* No data available

Table 81 5A (cont'd)

OBJECTIVE	% SUCCESS SECOND-YEAR PARTICIPANTS 4 YEAR OLDS 1972-73	1973-74	5 YEAR OLDS 1972-73	1973-74	% SUCCESS SECOND-YEAR + SUMMER 5 YEAR OLDS 1972-73	1973-74	% SUCCESS THIRD-YEAR PARTICIPANTS 5 YEAR OLDS 1973-74	1973-74 (+ summer)
1	23	48	64	38	49	60	54	37
2	-0-	5	30	13	19	-0-	25	15
3	20	24	55	31	42	40	46	28
4	7	14	40	19	32	27	42	17
5	30	67	62	44	63	67	54	48
6	27	15	70	38	68	33	46	33
7	-0-	2	17	-0-	23	-0-	4	2
8	10	8	34	13	37	13	8	17
9	10	9	15	19	19	13	8	7
10	3	5	15	13	14	13	4	2
11	7	6	15	25	30	20	8	4
12	20	34	70	38	86	47	54	24
13	3	5	11	19	16	20	8	2
14	-0-	-0-	6	6	2	7	4	2
15	27	23	47	44	63	33	29	22
16	17	39	60	44	60	20	46	20
17	33	20	70	56	72	13	50	17
18	27	31	74	31	86	33	63	35
19	33	41	77	44	86	27	83	37
20	**	**	**	**	**	**	**	**
21	**	**	**	**	**	**	**	**
22	7	2	15	19	28	-0-	8	9
23	30	82	81	63	86	27	67	41
24	**	26	**	38	**	13	**	**
25	**	**	**	**	**	**	**	**
26	**	68	**	31	**	27	**	**
27	43	13	81	38	88	47	71	52
28	37	60	79	44	79	20	58	48
29	30	32	70	38	79	13	75	41
30	**	66	**	56	**	20	**	**
31	**	63	**	44	**	13	**	**
32	**	19	**	13	**	13	**	**
33	**	48	**	31	**	13	**	**
34	**	40	**	25	**	13	**	**
35	**	13	**	13	**	13	**	**
36	**	38	**	25	**	13	**	**
37	**	**	**	**	**	**	**	**
38	**	**	**	**	**	**	**	**
	N=30	N=88	N=47	N=16	N=57	N=15	N=24	N=46

Table BI5B

Performance of Children on Instructional Objectives-Basic Component
BASELINE Performance of Groups of Participants at
Entry Into Program Differentiated by Age

% SUCCESS

3 YEAR OLD Objective	%	4 YEAR OLD Objective	%	5 YEAR OLD Objective	%
1.	46 (N=213)	1.	51	1.	46
2.	12	2.	21	2.	25
3.	23	3.	37	3.	44
4.	13	4.	25	4.	20
5.	55	5.	57	5.	48
6.	23	6.	52*	6.	54
7.	2	7.	15	7.	32
8.	9	8.	24	8.	22
9.	7	9.	16	9.	28
10.	3	10.	13	10.	21
11.	4	11.	22	11.	54
12.	28	12.	63	12.	75
13.	4	13.	15	13.	41
14.	1 (N=223)	14.	5 (N=170)	14.	13 (N=54)
15.	24	15.	45	15.	53
16.	35	16.	53	16.	58
17.	21	17.	45 (N=143)	17.	63
18.	35	18.	57 (N=143)	18.	59
19.	44	19.	56 (N=143)	19.	64
20.	32 (N=25)	20.	50 (N=30)	20.	48 (N=52)
21.	32 (N=25)	21.	47 (N=30)	21.	25 (N=52)
22.	4	22.	14	22.	8
23.	60*(N=193)	23.	70*(N=143)	23.	82
24.	28 (N=148)	24.	32 (N=96)	24.	37
25.	8 (N=25)	25.	**	25.	**
26.	48	26.	47 (N=96)	26.	65
27.	30*	27.	57*	27.	41
28.	54	28.	47 (N=96)	28.	63
29.	38	29.	29 (N=96)	29.	39
30.	63 (N=148)	30.	51 (N=96)	30.	63
31.	61 (N=148)	31.	43 (N=96)	31.	66
32.	21 (N=148)	32.	11 (N=96)	32.	39
33.	42 (N=148)	33.	48 (N=96)	33.	51
34.	34 (N=148)	34.	29 (N=96)	34.	46
35.	18 (N=148)	35.	26 (N=96)	35.	62 (N=76)
36.	34 (N=148)	36.	27 (N=96)	36.	39
37.	16 (N=25)	37.	13 (N=30)	37.	25 (N=52)
38.	28 (N=25)	38.	57 (N=30)	38.	46 (N=52)
	N=248		N=200		N=106

** No data available

* indicates variable level of accomplishment

Table BI 6A
Performance of Children on Instructional Objectives - Basic Component
PROGRESS Performance of Groups of Participants at Termination From Program
Differentiated by Age and Length of Participation

OBJECTIVE	% SUCCESS FIRST-YEAR PARTICIPANTS						% SUCCESS FIRST-YEAR + SUMMER	
	3 YEAR OLDS		4 YEAR OLDS		5 YEAR OLDS		5 YEAR OLDS	
	1972-73	1973-74	1972-73	1973-74	1972-73	1973-74	1972-73	1973-74
1	40	48	29	57	70	40	24	79
2	-0-	12	17	17	35	16	12	21
3	9	24	14	23	65	37	21	50
4	3	28	-0-	20	35	21	12	36
5	43	92	29	73	80	40	24	57
6	9	60	17	63	65	50	15	57
7	6	4	9	17	65	34	15	21
8	-0-	4	3	27	50	32	12	36
9	3	40	11	37	50	40	12	36
10	3	16	-0-	30	45	34	9	14
11	3	16	11	30	60	34	15	50
12	31	68	23	50	75	45	24	64
13	3	16	6	33	45	34	9	36
14	3	**	-0-	**	45	**	3	**
15	17	24	20	33	65	34	15	14
16	29	60	20	40	65	34	21	36
17	17	52	23	50	75	53	21	57
18	14	32	17	43	50	24	21	36
19	23	88	29	60	50	32	21	57
20	**	92	**	67	**	37	**	71
21	**	88	**	60	**	37	**	64
22	-0-	8	3	13	10	11	6	7
23	34	96	23	77	75	50	24	64
24	46	84	31	70	65	50	18	64
25	**	**	**	**	**	**	**	**
26	40	96	29	70	55	42	21	79
27	23	88	17	60	65	50	15	64
28	37	92	20	67	60	45	18	64
29	23	44	23	37	55	16	18	21
30	43	96	26	67	60	40	18	71
31	46	96	26	63	55	40	18	71
32	23	36	11	23	40	32	12	43
33	49	92	26	67	35	40	15	64
34	37	56	23	53	35	26	12	50
35	26	88	26	70	55	45	12	57
36	37	72	17	57	25	26	12	57
37	**	16	**	20	**	16	**	43
38	**	96	**	67	**	37	**	64
	N=35	N=25	N=35	N=30	N=20	N=38	N=34	N=14

** No data available

Table BI 6A(cont'd)

OBJECTIVE	% SUCCESS SECOND-YEAR PARTICIPANTS 4 YEAR OLDS 1972-73	4 YEAR OLDS 1973-74	5 YEAR OLDS 1972-73	5 YEAR OLDS 1973-74	% SUCCESS SECOND-YEAR + SUMMER 5 YEAR OLDS 1972-73	5 YEAR OLDS 1973-74	% SUCCESS THIRD-YEAR PARTICIPANTS 5 YEAR OLDS 1973-74	1973-74 (+ summer)
1	70	84	91	44	89	80	92	87
2	33	39	57	38	61	20	54	72
3	60	39	89	44	89	40	67	52
4	53	31	74	38	51	33	75	54
5	70	82	98	50	93	73	96	87
6	57	83	96	69	91	67	88	87
7	27	31	72	38	67	27	63	57
8	37	38	68	56	49	20	71	52
9	40	50	85	38	79	53	58	78
10	33	38	74	19	79	27	54	63
11	30	59	83	44	82	67	92	85
12	60	90	91	69	95	73	88	91
13	30	41	77	31	84	53	71	74
14	17	**	55	**	60	13	**	39
15	47	52	81	38	72	60	58	52
16	50	61	79	56	82	87	83	78
17	50	74	89	69	95	60	88	87
18	63	57	89	50	86	73	79	74
19	43	74	83	63	75	73	88	80
20	**	82	**	63	**	67	63	74
21	**	81	**	63	**	67	63	74
22	17	15	40	13	35	13	38	33
23	70	91	94	81	91	80	88	91
24	73	83	94	81	95	53	92	91
25	**	**	**	**	**	67	75	74
26	53	93	85	81	75	80	79	89
27	73	74	87	63	88	60	88	76
28	47	84	77	63	84	67	71	80
29	53	44	70	25	70	47	50	46
30	47	80	77	63	91	67	71	76
31	47	78	79	63	91	67	67	78
32	27	44	62	56	75	40	50	65
33	43	80	70	56	86	53	71	76
34	33	58	64	31	74	60	54	67
35	37	86	74	75	81	73	83	93
36	40	61	60	44	68	73	54	61
37	**	41	**	31	**	47	54	70
38	**	81	**	63	**	67	63	74
	N=30	N=88	N=47	N=16	N=57	N=15	N=24	N=46

Table BI6B

Performance of Children on Instructional Objectives-Basic Component
PROGRESS Performance of Groups of Participants at Termination from Program
Differentiated by Age and Length of Participation

% SUCCESS

	FIRST-YEAR PARTICIPANTS			
OBJ.	3 YR. OLD %	4 YR. OLD %	5 YR. OLD %	5 YR. OLD + Summer %
1.	43	42	50	40
2.	5	17	22	15
3.	15	18	47	29
4.	13	9	26	19
5.	92 (N=25)	49	53	33
6.	60 (N=25)	63 (N=30)	55	27
7.	5	12	45	17
8.	2	14	38	19
9.	18	23	43	19
10.	8	14	38	10
11.	8	20	43	25
12.	47	35	55	35
13.	8	18	38	17
14.	3 (N=35)	-0- (N=35)	45 (N=20)	3 (N=34)
15.	20	26	45	15
16.	42	29	45	25
17.	32	35	60	31
18.	33	29	33	25
19.	88	43	38	31
20.	92 (N=25)	67 (N=30)	37 (N=38)	71 (N=14)
21.	82 (N=25)	60 (N=30)	37 (N=38)	64 (N=14)
22.	3	8	10	6
23.	96 (N=25)	77 (N=30)	59	35
24.	62	49	55	31
25.	**	**	**	**
26.	96 (N=25)	48	47	79 (N=14)
27.	88 (N=25)	37	55	29
28.	92 (N=25)	67 (N=30)	50	31
29.	32	29	29	19
30.	96 (N=25)	45	47	33
31.	96 (N=25)	43	45	33
32.	28	11	34	21
33.	67	45	38	29
34.	45	37	29	23
35.	88 (N=25)	70 (N=30)	48	25
36.	52	57 (N=30)	26	25
37.	16 (N=25)	20 (N=30)	16 (N=38)	43 (N=14)
38.	96 (N=25)	67 (N=30)	37 (N=38)	64 (N=14)
	N = 60	N = 65	N = 58	N = 48

** No data available

Table BI6B (Cont'd)

% SUCCESS

OBJ.	2nd YEAR PARTICIPANTS 4 YR. OLD %	5 YR. OLD %	5 YR. OLD + Summer %	3rd YEAR PARTICIPANTS 5 YR. OLD %	5 YR. OLD + Summer %
1.	64	44(N=16)	88	92	87
2.	30	79	53	54	72
3.	35	44(N=16)	40(N=15)	67	52
4.	29	65	47	75	54
5.	63	50(N=16)	89	96	87
6.	61	89	86	88	87
7.	24	63	58	63	57
8.	30	65	43	71	52
9.	38	73	74	58	78
10.	29	60	27(N=15)	54	63
11.	41	73	79	92	85
12.	90(N=88)	86	90	88	91
13.	30	65	78	71	74
14.	17(N=30)	55(N=47)	50	**	39
15.	41	70	69	58	52
16.	47	73	83	83	78
17.	54	84	88	88	87
18.	47	79	83	79	74
19.	53	78	75	88	80
20.	82(N=88)	63(N=16)	67(N=15)	63	74
21.	81(N=88)	63(N=16)	67(N=15)	63	74
22.	12	33	31	38	33
23.	68	90	89	88	93
24.	64	90	53(N=15)	92	91
25.	**	**	67(N=15)	75	74
26.	93(N=88)	84	76	79	89
27.	59	81	82	88	76
28.	84(N=88)	73	81	71	80
29.	37	59	65	50	46
30.	57	73	86	71	76
31.	56	75	86	67	78
32.	32	62	68	50	65
33.	80(N=88)	67	79	71	76
34.	41	56	71	54	67
35.	86(N=88)	75	79	83	93
36.	45	56	69	54	61
37.	41(N=88)	31(N=16)	47(N=15)	54	70
38.	81(N=88)	63(N=16)	67(N=15)	63	74
	N = 148	N = 63	N = 72	N = 24	N = 46

** No data available

Table BI7A

Differences in Performance on Instructional Objectives - Basic Component

BASELINE Performance Differentiated by Age

OBJECTIVE	% DIFFERENCE 4 YEAR OLDS VS. 3 YEAR OLDS	5 YEAR OLDS VS. 3 YEAR OLDS	5 YEAR OLDS VS. 4 YEAR OLDS
1.	5	-0-	-5
2.	9	13	4
3.	14	21*	7
4.	12	7	-5
5.	2	-7	-9
6.	29*	31*	2
7.	13*	30*	17
8.	15*	13	-2
9.	9	21*	12
10.	10*	18*	8
11.	18*	50*	32*
12.	35*	47*	12
13.	11*	37*	26*
14.	4	12*	8
15.	21*	29*	8
16.	18*	23*	5
17.	24*	42*	18
18.	22*	24*	2
19.	12	20	8
20.	18	16	-2
21.	15	-7	-22
22.	10*	4	-6
23.	10	22*	12
24.	4	9	5
25.	**	**	**
26.	-1	17	18
27.	27*	11	-16
28.	-7	9	16
29.	-9	1	10
30.	-8	-0-	12
31.	-18	5	23
32.	-10	18	28*
33.	6	9	3
34.	-5	12	17
35.	8	44*	36*
36.	-7	5	12
37.	-3	9	12
38.	29	18	-11
	$\bar{D}$ = 9%	$\bar{D}$ = 17%	$\bar{D}$ = 8%

* $p \leq .0002$
** No data available

Table BI7B

Differences in Performance on groups of Instructional Objectives - Basic Component

BASELINE Performance Differentiated by Age

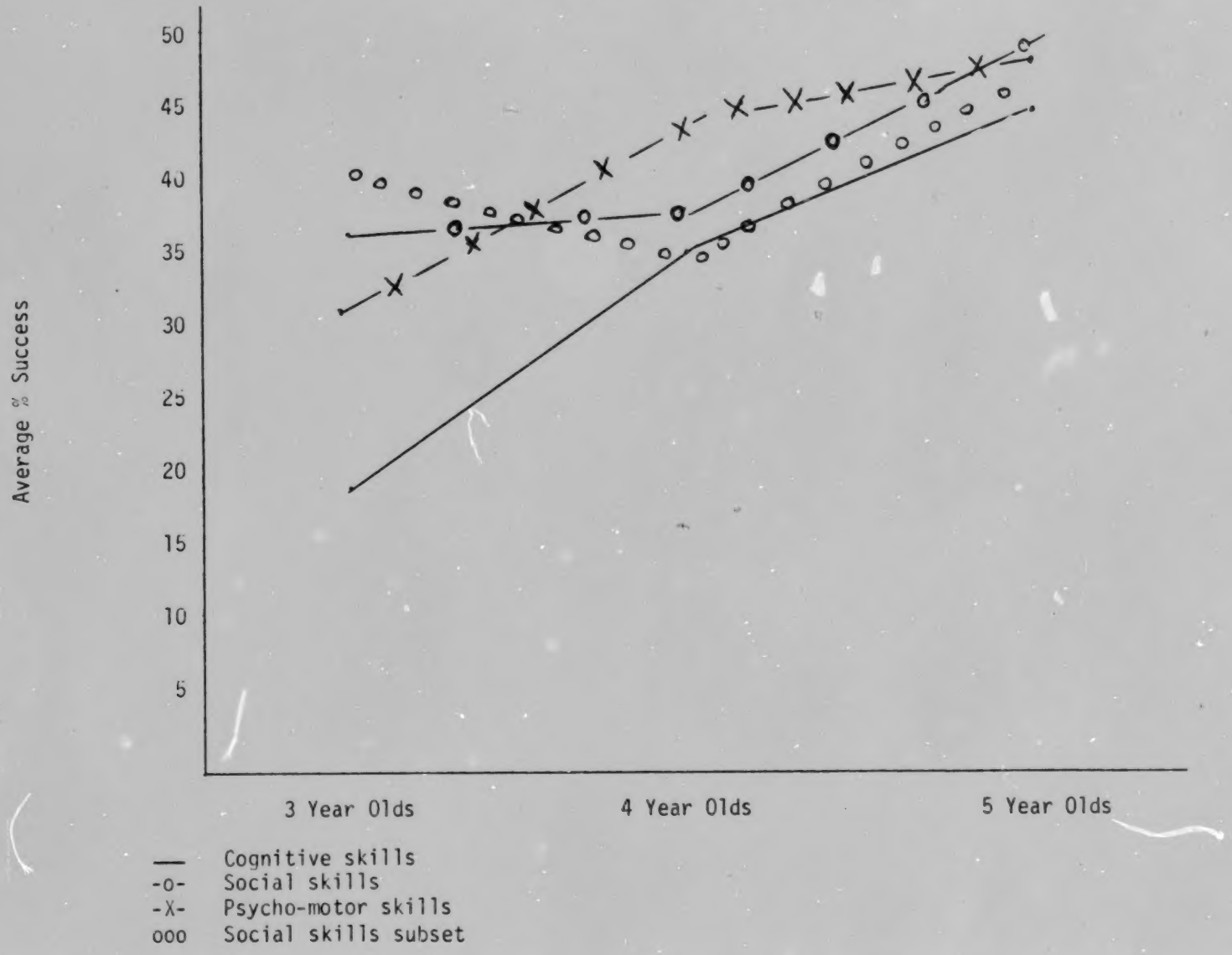


Table BI7C

Differences in Performance on Instructional Objectives - Basic Component
PROGRESS Performance Differentiated by Age and Length of Participation
Comparison With Appropriate Age Baseline

% DIFFERENCE
FIRST-YEAR PARTICIPANTS

OBJ.	3 YEAR OLDS	4 YEAR OLDS	5 YEAR OLDS	5 YEAR OLDS + Summer
1	-3	-11	4	-6
2	-7	-4	-3	-10
3	-12	-19	3	-15
4	-0-	-16	6	-1
5	37	-8	5	-15
6	37*	11	1	-27
7	3	-3	13	-15
8	-7	-10	16	-3
9	11	7	15	-9
10	5	1	17	-11
11	4	-2	-11	-29
12	19	-28*	-20	-40*
13	4	3	-3	-24
14	2	-5	32	-10
15	-4	-19	-8	-38*
16	7	-24	-13	-33*
17	11	-10	-3	-32
18	-2	-28	-26	-44*
19	44*	-13	-26	-33*
20	60*	17	-11	23
21	50	13	12	39
22	-1	-6	2	-2
23	35	7	-23	-47*
24	34*	17	18	-6
25	**	**	**	**
26	48*	1	-18	14
27	58*	-20	14	-12
28	38	20	-13	-32
29	-6	-0-	-10	-20
30	33	-6	-16	-30
31	35	-0-	-21	-33*
32	7	-0-	-5	-18
33	25	-3	-13	-22
34	11	8	-17	-23
35	70*	44*	-14	-37*
36	18	30	-13	-14
37	-0-	7	-9	18
38	68*	10	-11	18
	$\overline{D}$ = 20%	$\overline{D}$ = -1%	$\overline{D}$ = -4%	$\overline{D}$ = -16%
Sign test	Z = 3.043***	Z = -.857	Z = -1.644	Z = -4.603***

* $p \leq .00007$

** No Data available

*** $p \leq .003$

Table BI7C (Cont'd)

OBJ.	% DIFFERENCE SECOND - YEAR PARTICIPANTS 4 YEAR OLDS	5 YEAR OLDS	5 YEAR OLDS + Summer	% DIFFERENCE THIRD - YEAR PARTICIPANTS 5 YEAR OLDS	5 YEAR OLDS + Summer
1	13	-2	42*	46*	41*
2	9	54*	28*	29	47*
3	-2	-C-	-4	23	8
4	4	45*	27*	55*	34*
5	6	2	41*	48*	39*
6	9	35*	32*	34	33*
7	9	31*	26	31	25
8	6	43*	21	49*	30*
9	22*	45*	46*	30	50*
10	16	39*	6	33	42*
11	19*	19	25	38	31
12	27*	11	15	13	16
13	15	24	37*	30	33
14	12	42*	37*	**	26
15	-4	17	16	5	-1
16	-6	15	25	25	20
17	11	21	25	25	24
18	-10	20	24	20	15
19	-3	14	11	24	16
20	32	15	19	15	26*
21	34	38	42	38*	49*
22	-2	25*	23*	30*	25*
23	-2	8	7	6	11
24	32*	53*	16	55*	54*
25	**	**	**	**	**
26	46*	19	11	14	24*
27	2	40*	41*	47*	35*
28	37*	10	18	8	17
29	8	20	26	11	7
30	6	10	23	8	13
31	13	9	20	1	12
32	21	23	27*	11	26
33	32*	16	28	20	25
34	12	10	25	8	21
35	60*	13	17	21	31
36	18	17	30*	15	22
37	28	6	22	29	45*
38	24	17	21	17	28
	$\bar{D}$ = 15%	22%	24%	25%	27%
Sign test	Z = 3.617***	5.500***	5.590***	5.833***	5.590***

* $p \leq .00007$

** No data available

*** $p \leq .003$

Table BI7D

Differences in Performance on Instructional Objectives - Basic Component
PROGRESS Performance Between Length of Participation Within Age Groups
Selected Comparisons
% DIFFERENCE

OBJ.	I 3rd Year 5 + Summer VS. 1 Year 5	II 3rd Year 5 + Summer VS. 1st Year 5 +Summer	III 3rd Year 5 + Summer VS. 2nd Year 5	IV 3rd Year 5 + Summer VS. 2nd Year 5 + Summer	V 3rd Year 5 + Summer VS. 3rd Year 5
1	37*	47*	43*	-1	-5
2	50*	57*	-7	19	18
3	5	23	8	12	-15
4	28	35	-11	7	-21
5	34	54*	37	-2	-9
6	32	60*	-2	1	-1
7	12	40*	-6	-1	-6
8	14	33	-13	9	-19
9	35	59*	5	4	20
10	25	53*	3	36	9
11	42*	60*	12	6	-7
12	36*	56*	5	1	3
13	36	57*	11	-4	3
14	-6	36	-16	-11	**
15	7	37	-18	-17	-6
16	33	53*	5	5	-5
17	27	56*	3	-1	-1
18	41*	49*	-5	-9	-5
19	42*	49*	2	5	-8
20	37	3	14	7	11
21	37	10	14	7	11
22	23	27	-0-	2	-5
23	34*	58*	3	4	5
24	36*	60*	1	38	-1
25	**	**	**	7	-1
26	42*	10	5	13	10
27	21	47*	-5	-6	-12
28	30	49*	7	-1	9
29	17	27	-13	-19	-4
30	29	43*	3	-10	5
31	33	45*	3	-8	11
32	21	44*	3	-3	15
33	38	47*	9	-3	5
34	38	44*	11	-4	13
35	35*	68*	18	14	10
36	35	36	5	-8	7
37	54*	27	39	23	16
38	37	10	11	7	11
	$\overline{D}$ = 30%	$\overline{D}$ = 42%	$\overline{D}$ = 5%	$\overline{D}$ = 3%	$\overline{D}$ = 2%

* $p \leq .00003$

** No data available

Table BI7D (Cont'd)

% DIFFERENCE

OBJECTIVE	VI 3rd Year 5 VS. 1st Year 5	VII 3rd Year 5 VS. 1st Year 5 + Summer	VIII 3rd Year 5 VS. 2nd Year 5	IX 3rd Year 5 VS. 2nd Year 5 + Summer
1	42	52*	48	4
2	32	39	-25	1
3	20	38	23	27
4	49*	56*	10	28
5	43	63*	46	7
6	33	61*	-1	2
7	25	46*	-0-	5
8	33	52*	6	28
9	15	39	-15	-[illegible]
10	16	44*	-6	27
11	49*	67*	19	13
12	33	53*	2	-2
13	33	54*	6	-7
14	**	**	**	**
15	13	43	-12	-11
16	38	58*	10	-0-
17	28	57*	4	-0-
18	46	54*	-0-	-4
19	50*	57*	10	13
20	26	-8	-0-	-4
21	26	-1	-0-	-4
22	28	32	5	7
23	29	53*	-2	-1
24	37	61*	2	39
25	**	**	**	8
26	32	-0-	-5	3
27	33	59*	7	6
28	21	40	-2	-10
29	21	31	-9	-15
30	24	38	-2	-15
31	22	34	-8	-19
32	16	29	-12	-18
33	33	42	4	-8
34	25	31	-2	-17
35	35	58*	8	4
36	28	29	-2	-15
37	38	11	23	7
38	26	-1	-0-	-4
	$\overline{D}$ = 31%	$\overline{D}$ = 41%	$\overline{D}$ = 4%	$\overline{D}$ = 2%

* $p \leq .00003$

** No data available

Table BI7D (Cont'd)

% DIFFERENCE

OBJ.	X 2nd Year 5 + Summer VS. 1st Year 5	XI 2nd Year 5 + Summer VS. 1st Year 5 + Summer	XII 2nd Year 5 + Summer VS. 2nd Year 5	XIII 2nd Year 5 VS. 1st Year 5	XIV 2nd Year 5 VS. 1st Year 5 + Summer
1	38*	48*	44*	-6	4
2	31	38*	-26	57*	64*
3	-7	11	-4	-3	15
4	21	28	-18	39*	46*
5	36*	56*	39	-3	17
6	31*	59*	-3	34*	42*
7	13	41*	-5	18	46*
8	5	24	-22	27	46*
9	31	55*	1	30	54*
10	-11	17	-33	22	50*
11	36*	54*	6	30	48*
12	35*	55*	4	31	51*
13	40*	61*	13	27	48*
14	5	47*	-5	10	52*
15	24	54*	-1	25	55*
16	38*	58*	10	28	48*
17	28	57*	4	24	53*
18	50*	58*	4	46*	54*
19	37*	44*	-3	40*	47*
20	30	-4	4	26	-8
21	30	3	4	26	-1
22	21	25	-2	23	27
23	30*	54*	-1	31*	55*
24	-2	22	-37	35*	59*
25	**	**	**	**	**
26	29	-3	-8	37*	5
27	27	53*	1	26	52*
28	31	50*	8	23	42*
29	36*	46*	6	30	40*
30	39*	53*	13	26	40*
31	41*	53*	11	30	42*
32	34	47*	6	28	41*
33	41*	50*	12	29	38*
34	42*	48*	15	27	33
35	31	54*	4	27	50*
36	43*	44*	13	30	31
37	31	4	16	15	-12
38	30	3	4	26	-1
	$\bar{D}$ = 28%	$\bar{D}$ = 40%	$\bar{D}$ = 2%	$\bar{D}$ = 26%	$\bar{D}$ = 37%

* $p \leq .00003$

** No data available

Table BI7D (Cont'd)
% DIFFERENCE

OBJECTIVE	XV 1st Year 5 + Summer VS. 1st Year 5	XVI 2nd Year 4 VS. 1st Year 4
1	-10	22
2	-7	13
3	-18	17
4	-7	20
5	-20	14
6	-28	-2
7	-28	12
8	-19	16
9	-24	15
10	-28	15
11	-18	21
12	-20	55*
13	-21	12
14	-42	17
15	-30	15
16	-20	18
17	-29	19
18	-8	18
19	-7	10
20	34	15
21	27	21
22	-4	4
23	-24	-9
24	-24	15
25	**	**
26	32	45*
27	-26	22
28	-19	17
29	-10	8
30	-14	12
31	-12	13
32	-13	21
33	-9	35*
34	-6	4
35	-23	16
36	-1	-12
37	27	21
38	27	14
	$\overline{D}$ = -11%	$\overline{D}$ = 16%

* $p \leq .00003$

** No data available

Table BI7E
Differences in Performance on Instructional Objectives - Basic Component
PROGRESS Performance Between Age Within Length of Participation Groups
Selected Comparisons
% DIFFERENCE

OBJ.	I 1st Year 4 VS. 1st Year 3	II 1st Year 5 VS. 1st Year 4	III 2nd Year 5 VS. 2nd Year 4	IV 1st Year 5 VS. 1st Year 3
1	-1	8	-20	7
2	12	5	49*	17
3	3	29	9	32
4	-4	17	36*	13
5	-43	4	-13	-39
6	3	-8	28*	5
7	7	33*	39*	40*
8	12	24	35*	36*
9	5	20	35*	25
10	6	24	31*	30
11	12	23	32*	35*
12	-12	20	-4	8
13	10	20	35*	30
14	-3	45*	38	42
15	6	19	29	25
16	-13	16	26	3
17	3	25	30*	28
18	-4	4	32*	-0-
19	-45*	-5	25	-50*
20	-25	-30	-19	-55*
21	-22	-23	-18	-45
22	5	2	21	7
23	-19	-18	22	-37
24	-13	6	26	-7
25	**	**	**	**
26	-48*	-1	-9	-49*
27	-51*	18	22	-33
28	-25	-17	-11	-42
29	-3	-0-	22	-3
30	-51*	2	16	-49*
31	-53*	2	19	-51*
32	-17	23	30*	6
33	-22	-7	-13	-29
34	-8	-8	15	-16
35	-18	-22	-11	-40
36	5	-31	11	-26
37	4	-4	-10	-0-
38	-29	-30	-18	-59*
Sign Test	$\bar{D}$ = -12% Z = -1.644	$\bar{D}$ = 4% Z = 1.500	$\bar{D}$ = 15% z = 2.302	$\bar{D}$ = -7% Z = 0.000

* $p \leq .00003$

** No data available

Table BI8A

Differences in Performance on Instructional Objectives - Basic Component
PROGRESS Performance Between Bench - Mark and 5 Year Old Participants
Differentiated by Length of Participation

% DIFFERENCE

BENCH - MARK VS.

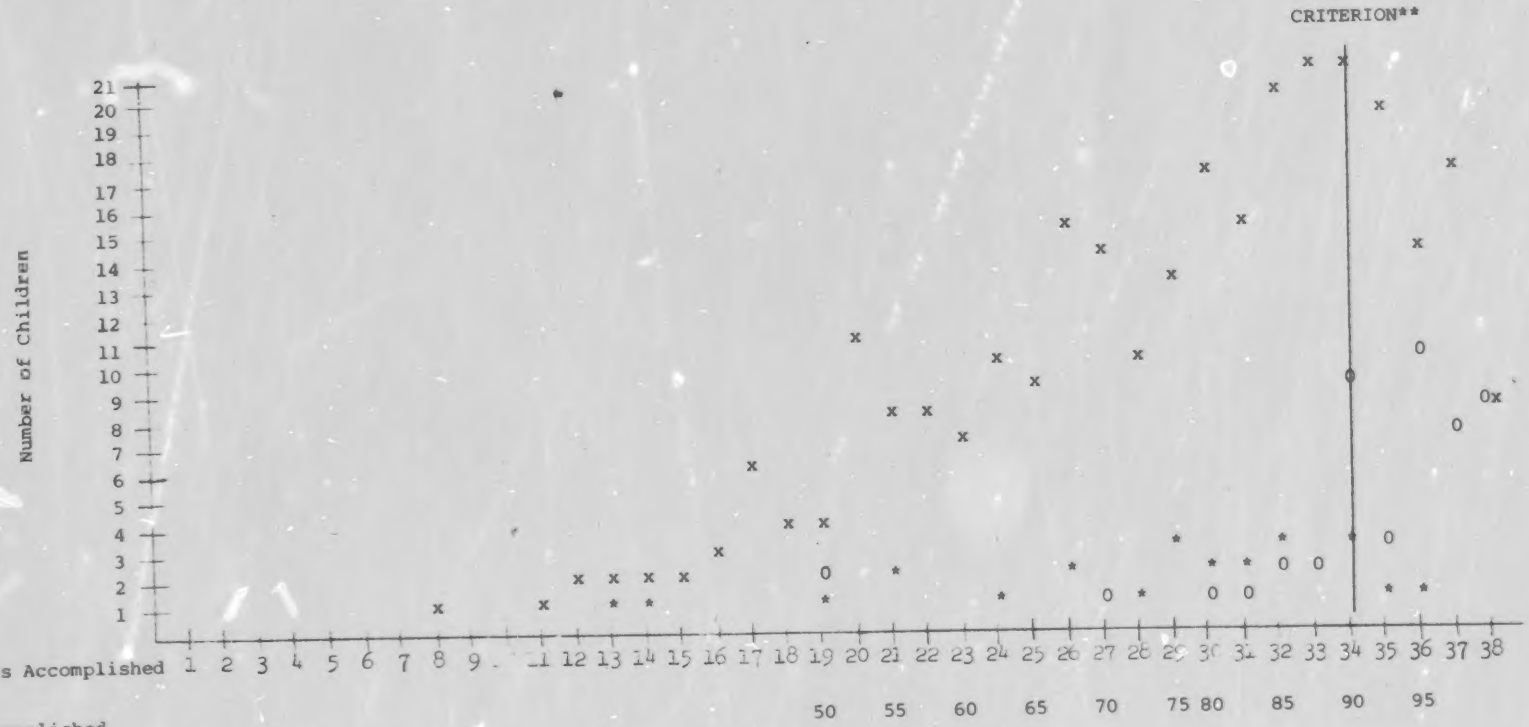
OBJ.	1st Year 5	1st Year 5 + Summer	2nd Year 5	2nd Year 5 + Summer	3rd Year 5	3rd Year 5 + Summer
1	-48*	-58*	-54*	-10	-6	-11
2	-56*	-63*	1	-25*	-24	-6
3	-45*	-63*	-48*	-52*	-25*	-40*
4	-42*	-49	-3	-21	7	-14
5	-44*	-64*	-47*	-8	-1	-10
6	-21	-49*	13	10	12	11
7	-34*	-62*	-16	-21	-16	-22
8	-39*	-58*	-12	-34*	-6	-25
9	-9	-33*	21	22	6	26
10	2	-26	24	-9	18	27
11	-29*	-47*	1	7	20	13
12	-31*	-51*	-0-	4	2	5
13	-35*	-56*	-8	5	-2	1
14	-19	-61*	-9	-14	**	-25
15	-8	-38*	17	13	5	-1
16	-42*	-62*	-14	-4	-4	-9
17	-22	-51*	2	6	6	5
18	-54*	-62*	-8	-4	-8	-13
19	-30*	-37*	10	7	20	12
20	-61*	-27*	-35*	-29*	-35*	-24*
21	-60*	-33*	-34*	-28*	-34*	-23*
22	-19*	-33*	-6	-8	-1	-6
23	-27*	-51*	4	3	2	7
24	5	-19	40*	3	42*	41*
25	**	**	**	-27*	-19	-20*
26	-33*	-1	4	-4	-1	9
27	-16	-42*	10	11	17	5
28	-45*	-64*	-22*	-14	-24*	-15
29	-52*	-62*	-22	-16	-31	-35*
30	-57*	-61*	-21*	-8	-23*	-18*
31	-27*	-39*	3	14	-5	6
32	-23*	-49*	-8	-2	-20	-5
33	-41*	-50*	-12	-0-	-8	-3
34	-49*	-55*	-22	-7	-24	-11
35	-30*	-53*	-3	1	5	15
36	-52*	-53*	-22	9	-24	-17
37	-44*	-17	-29	-13	-6	10
38	-59*	-32*	-33*	-29*	-33*	-22*
	$\bar{D}$ = -35%	$\bar{D}$ = -47%	$\bar{D}$ = -9%	$\bar{D}$ = -7%	$\bar{D}$ = -6%	$\bar{D}$ = -5%

* $p \leq .0001$
** No data available

Table BI8B

Performance on Instructional Objectives-Basic Component
PROGRESS of Selected Groups of Students
Number of Objectives Accomplished Differentiated by Individuals

X: N = 284, 28% of children met criterion
O: N = 46, 80% of children met criterion
*: N = 24, 21% of children met criterion

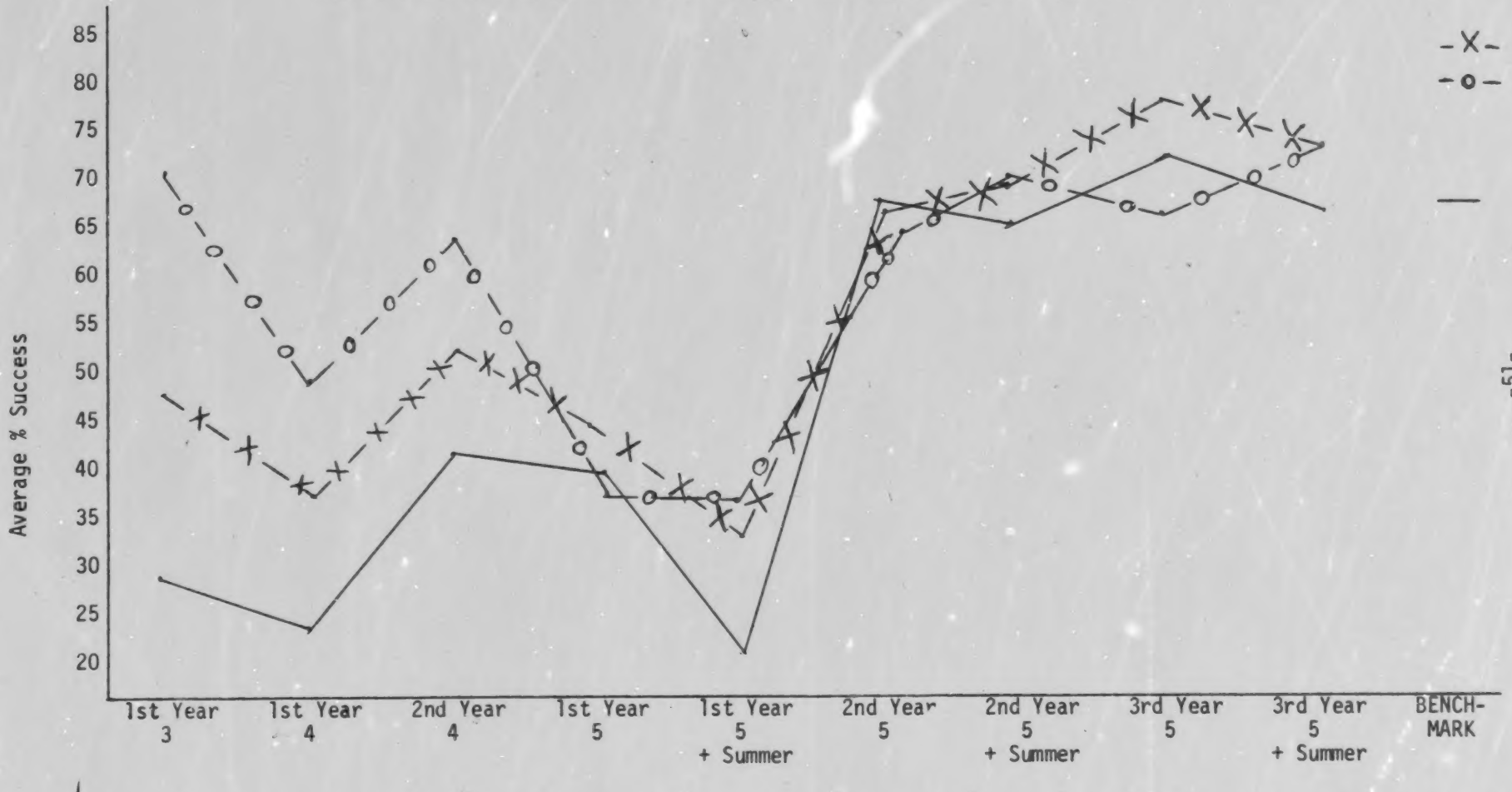


X Bench-Mark
O 3 Year 5 Year Old + Summer

* 3 Year 5 Year Old
** All children who participate in the Project for 3 years will be able to perform 90% of the instructional objectives

Table BI8C

Differences in Performance on Groups of Instructional Objectives - Basic Component
PROGRESS Performance Differtiated by Age and Length of Participation



The Self-Concept of Participants

The idea of "self-concept" is one that was implicit in much of the Project operational processes. This applied both to the participating parents and to their children who were involved in the program. During the first year of operation, no specific and direct plans were outlined to monitor that phenomenon. Since the present state of knowledge and of measuring instruments with regard to one's "self-concept" are rudimentary and indirect, that evaluation focused on behaviors exhibited by participants which might be assumed to be reflective of a "can-do" attitude exhibited toward learning or teaching tasks, exercising initiative or learning on one's own, and enthusiasm and willingness toward continued participation in the program. Commensurate with the assumptions of the Project, it was deemed important to monitor whether or not the program provided the conditions under which the self-concept of all participants would be maximized.

Table BI9 displays the results of the measurement of the self-concept of participating children. It may seem that the proportions of youngsters manifesting those self-concept behaviors, as observed by the coordinators during home visits, were considerably lower during the 1973-74 operational year for all age levels and year-of-participation categories. That outcome might be attributed to the refinement of the definition of, and the criterion of success for, two of the three behaviors. For the remaining behavior, "child is excited about visit from coordinator", the proportions of children manifesting "positive self-concept" behaviors were essentially the same for 3 year old, 4 year old, and second-year 4 year old children for each of the two years of operation. First- and second-year 5 year olds, on the other hand, showed a sharp decline in the proportions of children manifesting "positive self-concept" behaviors on that objective. A high proportion of third-year 5 year old children, in contrast,

manifested "positive self-concept" behaviors on that objective.

Perhaps, that outcome reflected something akin to the "degree of commitment to the program" on the part of participating families. Along this line, it would appear that the "degree of commitment" was high for families with 3 year old, second-year 4 year old, or third-year 5 year old children. This commitment appeared to be least strong for families with first-year 4 year old youngsters. The commitment of families with first-year 5 year olds was somewhat less than that of second-year families with 4 year old children and second-year families with 5 year old children. Thus, it would seem that the appeal of the program is high for families with 3 year old youngsters. That is commensurate with the fact that the 3 year old child is beginning to explore his world on a more verbal and "intellectual" basis than previously; parents, concomitantly, may be actively seeking "things to do" with their child. At that point, if what the program had to offer was consonant with what the parent desired, the commitment could be expected to continue and it would not seem unreasonable that the behaviors which the program engendered would continue to develop and be manifested by participating children. In fact, the phenomenon of concomitance between program offering/participant desire and demonstration of "positive self-concept" behaviors was evidenced most dramatically in the proportions of "positive self-concept" behaviors manifested by first-, second-, and third-year 5 year old children. Finally, it would also seem to be the case that families which entered the program with 4 or 5 year old children did so for different reasons or desires than those families who entered the program with 3 year old children.

One other result from those data was also noteworthy. The patterns of performance on the "self-concept" behaviors seemed to parallel the patterns of performance on the instructional objectives for particular age/length of participation groups. That is, the effect on the growth of the self-concept of

participants appeared to be greater with a corresponding increase in length of participation. When length of participation was held constant, the range of absolute differences in the proportions of students manifesting "positive self-concept" behaviors was 0 - 24%, and the number of differences in the expected direction (greater age - greater proportion of positive behavior) was not significant (sign test $Z = .417$; $p \leq .34$). Conversely, when age was held constant, the range of absolute differences in the proportions of students manifesting "positive self-concept" behaviors was 0 - 26%, and the number of differences in the expected direction (longer participation - greater proportion of positive behavior) was highly significant (sign test $Z = 3.88$; $p \leq .00005$). In addition, the order of the proportion of participants manifesting "positive self-concept" behaviors, from lowest to highest on each of the 3 behaviors, was, in general, first-year 4 year old, first-year 3 and 5 year old, second-year 4 and 5 year old, and third-year 5 year old participants (compare Tables BI8C & BI9).

Table BI9
Performance of Children on Self-Concept Behaviors
Progress Data
First-Year Participants

	3 Year Olds % Manifesting		4 Year Olds % Manifesting		5 Year Olds % Manifesting	
	1972-73	1973-74	1972-73	1973-74	1972-73	1973-74
Child is excited about visit from coordinator	83	73	66	57	75	49
Child "shows off" skills that have been learned	43	25	47	17	47	26
Child does new learning activity on his own	39	21	43	13	47	23
	N=112	N=146	N=47	N=54	N=36	N=39

Table BI9 (cont'd)

Performance of Children on Self-Concept Behaviors
Progress Data

	Second-Year Participants				Third-Year Participants
	4 Year Olds % Manifesting		5 Year Olds % Manifesting		5 Year Olds % Manifesting
	1972-73	1973-74	1972-73	1973-74	1973-74
Child is excited about visit from coordinator	79	72	82	58	75
Child "shows off" skills that have been learned	55	35	59	29	42
Child does new learning activity on his own	51	33	54	26	26
	N=92	N=88	N=114	N=31	N=69

Follow-up of Participants

During each of the three years of the operation of the Project, in addition to monitoring the progress of participants on the Project instructional objectives, the performance of participants with respect to reading was monitored as those children began attending school in grades one to three. Each child was tested with the Harper & Row Reading Readiness test appropriate for the grade which the student was entering. The test is a group, norm-referenced test and was administered by the classroom teacher as part of the usual reading instructional process. Also, the appropriate grade-level Harper & Row Reading Achievement test was administered to all students at the end of the year within the context of the regular classroom reading program. The results of the reading performance of students are displayed in Tables BI10A & BI10B. Within this facet of the evaluation the groups were delimited as follows:

NORM	- students utilized by the test publisher in the standardization process.
BENCH-MARK	- students who had not participated in a concerted preschool educational program.
TITLE III 1 YEAR	- students who participated in the Title III program for 1 year only as 3, 4, or 5 year old children.
TITLE III 2 YEAR & 2 YEAR + SUMMER	- students who participated in the Title III program for 2 years only as 3-4 or 4-5 year old children and 2 years plus the summer program as 5 year old children.
TITLE III 3 YEAR & 3 YEAR + SUMMER	- students who participated in the Title III program for 3 years as 3-4-5 year old children and 3 years plus the summer program as 5 year old children.

The first step in the analysis of the data consisted of comparing the performance of students within the same type and length of participation group between different academic years (e.g., bench-mark 1972, 1973, 1974; Title III 1 year 1972, 1973). When non-significant differences were found, the data from the separate years were combined to form a representative norm of performance for a particular type/length of participation group; when significant differences were manifested,

the data were not combined and no representative performance norm was derived. An overall α - level of significance was maintained at .05 for this step in the analysis.

The second and final step in the analysis consisted of comparing, within a given grade for both the reading readiness and reading achievement tests, the performance of the various Title III length of participation groups to that of the bench-mark group, and comparing the different length of participation Title III groups to one another. The overall α - level of significance was held to .05 within that phase of the analysis and that analysis yielded the following outcomes.

At grade 1 on the readiness test:

All Title III groups performed at a higher level than the bench mark group;

None of the Title III groups significantly outperformed one another;

The average performance of the 3 year + summer group was the highest and the variance of that group was significantly lower than that of the other Title III groups;

The Title III 3 year + summer and 2 year groups significantly outperformed the bench-mark group.

At grades 2 and 3 on the readiness test:

All but one of the Title III groups performed at a higher level than the bench-mark group;

None of the Title III groups significantly outperformed the bench-mark group nor did any of the Title III groups significantly outperform one another;

The effect of length of participation in the Title III program was more apparent in grade 2 than in grade 1.

At grades 1 and 2 on the achievement test:

All Title III groups performed at a higher level than the bench-mark group;

None of the Title III groups significantly outperformed the bench-mark group nor one another.

Over all Title III groups and categories of reading performance:

13 of 14 Title III groups performed at a higher level than the bench-mark group (sign test: $Z = 2.940$, $P \leq .002$);

12 of 14 Title III groups performed in a less variable manner than did the bench mark group (sign test: $Z = 2.405$, $P \leq .008$).

The results of the follow-up evaluation of program participants clearly revealed that the general goal of the Project concerning "an increase in reading readiness upon entering the first grade and an increase in reading achievement in the first grade and beyond" had been met.

Table BI10A
Reading Performance of Students in Grades 1-3
Harper & Row Reading Test
Reading Readiness

		NORM	BENCH-MARK 1972-73-74	TITLE III PARTICIPANTS 1 YEAR 1972-73-74	2 YEAR 1973-74	2 YEAR + SUMMER 1973-74	3 YEAR 1974	3 YEAR + SUMMER 1974
GRADE 1	$\bar{X}$	100.6	100.13	106.40	111.08	107.13	106.14	115.65
	S.D.	23.87	28.40	19.12	15.75	20.90	19.19	11.76
	N	772	217	83	37	48	14	26
			1973 1974	1973 1974	1974	1974	1975	1975
GRADE 2	$\bar{X}$	126.8	129.79 114.32	138.70 113.00	116.81	123.78		
	S.D.	42.01	40.19 37.50	34.78 31.23	38.56	37.81		
	N	502	70 98	27 15	21	36		
			1974	1974	1975	1975	1976	1976
GRADE 3	$\bar{X}$	144.0	141.91	149.09				
	S.D.	31.72	33.02	30.23				
	N	503	91	34				

Table BII0B
Reading Performance of Students in Grades 1-3
Harper & Row Reading Test
Reading Achievement

		NORM	BENCH-MARK 1972-73	TITLE III PARTICIPANTS 1 YEAR 1972-73	2 YEAR 1973	2 YEAR + SUMMER 1973	3 YEAR 1974	3 YEAR + SUMMER 1974
GRADE 1	$\bar{X}$	137.8	148.56	155.88	154.00	154.85		
	S.D.	26.98	21.51	8.89	15.31	8.10		
	N	503	85	34	7	13		
			1973	1973	1974	1974	1975	1975
GRADE 2	$\bar{X}$	170.8	175.65	176.91				
	S.D.	38.52	34.44	32.21				
	N	493	65	33				
			1974	1974	1975	1975	1976	1976
GRADE 3	$\bar{X}$	130.42						
	S.D.	20.08						
	N	472						

Specialized Component - Instructional

To date, 75 children have been enrolled in this component of the Project. Two types of youngsters have usually participated. One was the child who had severe impairments in learning capacity due to genetic anamolies (e.g., Downe's syndrome), brain damage, severe coordination problems (e.g., spasticity), limited sensory capacity (e.g., blindness, deafness), or gross intellectual deficits. More often than not, many of those symptoms were exhibited by a single child. The other type of child who would participate in this component of the Project was one who had a severe learning problem in a single area, most often that of speech and language. That latter kind of child would receive educational materials from both the basic and the specialized instructional curricula.

The primary selection factor for participation in this component was that of parental request. After the parents of a particular child had requested such help, the educational specialist visited the home and diagnosed the child's areas of special educational need. Subsequently, a coordinator from the specialized staff visited the home, presented the educational materials for which the parent had asked, modeled instructional procedures for the parent, and assisted the parent in completing an individualized lesson checklist which enabled the parent to monitor the child's progress. It was readily apparent that the educational experiences provided within this component were highly personalized both from the standpoint of parent selection of skills to be learned and from the viewpoint of student ability. Hench, it was not deemed accurate or practical to develop and apply general instructional objectives that would pertain to every youngster who participated in this element of the program.

It should not be concluded from the foregoing discussion, however, that there were no commonalities within this section of the program. One common thread was that the Vineland Social Maturity Scale and the Basic Concept Inventory were used

as preliminary information gathering devices to indicate areas in which a child might most need specialized materials. A second instance wherein a general process was applied was that of behavior modification. That technique was the only one employed in teaching the specialized materials provided in this component. Another area of shared experience was that of the basic curricular materials from which individualized lesson materials were derived. Those materials included:

> Self-help skill and language programs developed by the Exceptional Child Research Program, Teaching Research Division, of the University of Oregon;
>
> The Frostig Program for the Development of Visual Perception program;
>
> The DISTAR Language Instructional System;
>
> The DISTAR Arithmetic Instructional System;
>
> Curricular materials developed by the Early Childhood Education Project.

From those five sets of instructional materials, a personalized learning experience was designed for each individual youngster, as based upon the educational priorities established by the child's parents, by selecting individual lessons from one or more of the five sets of curricular materials. Moreover, the participating parent played a vital role in selecting appropriate reinforcers, in designating portionsor the entire package of any or all of those curricular materials as a means of providing learning experiences for their youngster, and in determining the accomplishment of the youngster as the behavior modification technique was utilized in the learning process.

The results of successful learning accomplishment by the children who participated in this section of the Project are depicted in Table SI1 while descriptive data on each of the youngsters is outlined in Table SI2. In order to accomplish any given skill, a youngster had to perform each sub-skill correctly 3 or 5 times (depending on the material) in succession. The progress of individual

participants may be deciphered by locating a particular student's code number from Table SI2 and then noting each skill after which that code number is listed on Table SI1. Some examples are provided, below, in order to demonstrate the use of the tables and to illustrate the progress of selected children.

Student 6 - a girl, about age 6, participated in the program during the 1971-72 year (first operational year); somewhat socially immature, very poor language skills. Accomplished the following skills:

* imitate speech patterns of the form:
  - article - noun
  - verb - article - noun
  - noun - verb - participle
  - pronoun - verb - article - noun
* describe a picture using:
  - pronoun - verb - article - noun
  - adjective - noun - verb - participle
* draw a line between two objects from left to right within straight, curved, and angular paths.
* trace broken lines along and on curved angled, and multi-directional paths.

Student 37- a boy, age 4, participated in the program for ½ of the 1972-73 year (second operational year); received materials from both the basic and specialized components. Accomplished the following skills:

* pronounce sounds precisely for:
  - long and short vowels
  - single consonants
  - consonant clusters
  - dipthongs
* use speech patterns recognizable by others to identify objects & parts of objects.
* use the following correctly in spoken sentences:
  - participles
  - concept of "yes", "no", & "not"
  - preposition "in"
  - polar opposites "long-not long", "big-not big"

Student 10 - a girl, age 2½, participated in the program for 1971-72-73 years (all three operational years); very immature, very poor language skills. Accomplished the following skills:

* string 5 beads.
* step over knee-high object.
* touch nose with forefinger after extending arm to full length.
* maintain eye contact with an adult or object for 10 seconds.
* perform motor coordination patterns smoothly.
* get dressed and undressed unaided.
* care for self at toilet.
* perform skills necessary to make speech sounds.
* imitate one-, two-, and multi- syllable nouns and participles presented verbally and represented by a picture.
* respond with a one-syllable word when presented with a picture and asked, "What is this?"
* imitate speech patterns of the form articile-noun.
* pronounce, approximately, 250 one-and two-syllable words.
* count 1-4 objects.
* identify 20 parts of the body.

Six conclusions seemed apparent from the data presented in Table SII. First, all children have learned new skills since entering the specialized component of the Early Childhood Education Project. Second, the skills that were accomplished involved rudimentary tasks. Third, those tasks were ones which children of a much younger age who were participating in the basic component of the program had already mastered on their own. Fourth, the amount of time necessary to complete the learning of any one skill was considerable. Fifth, much of the learning activities provided for those children involved work with speech and language skills. And sixth, each child who participated in this component immediately began learning new skills.

Certain other accomplishments, not readily descernible from Table SII, were exhibited by participants in this component. Those included:

* A 3 year old child who had never uttered any sounds other than grunts and cries now has a speaking vocabulary of 15 words.

* A 6 year old child who had never walked is now able to take 5 steps by himself.

* Six 3, 4, and 5 year old children who were unable to speak clearly can now be understood by persons not familiar or intimately associated with them.

* A 4 year old child who had to be fed and could not talk now eats with a spoon, can identify the letters of the alphabet, can count from 1-25, can identify the numerals from 1-25, and speaks with simple sentences.

* Four 3, 4, and 5 year old children, formerly unable to maintain eye contact with a teacher or with learning materials, have increased their ability to attend to problem solving activities and to work on tasks for a period of 10-20 minutes.

Those results would seem to have not only favorable effects on the youngsters' attitudes toward themselves and toward learning experiences in general but also positive influences on the parents' attitudes toward their competency and usefulness as teachers.

TABLE SI1
Performance of Children on Lesson Objectives
Specialized Component

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[1]Coordination:			
String 5 Beads	1,5,13	25	10
Step over knee-high object	1		10
Touch nose with forefinger after extending arm to full length	1		10
Maintain eye contact with an object or an adult for 10 seconds	1,3,5	10	
To catch a 6 inch ball thrown from:			
2 ft. 4 ft. 6 ft.	2,5,12		
To catch a tennis ball thrown from:			
2 ft. 4 ft. 6 ft.	2		
Rolling over from on back to stomach			24
Knee bend			24
Leg lift-both legs 12" off floor - hold for 2 seconds			24

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
To perform motor coordination patterns smoothly including clapping, standing, sitting, marching in place, moving arms up and down	5		10
To perform 9 coordinated movements with both arms simutaneously	2,12		
Stand alone		24	
To do 5 sit-ups with assistance		1	
To cut an object with at least			
1 straight line		12	46, 71
1 curved line			46, 71
Walk:			
With assistance of another 50 ft.			24
Alone			
Hold pencil in manner suitable for drawing/writing			24

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[1]Self-help:			
To remove shoes unaided	5,10		
To remove socks unaided	5,10		
To remove pants unaided	5,10	1	
To put on socks unaided	5	1,10	
To put on shoes unaided		10	75
To tie shoes unaided	4		
To eat with a large spoon unaided	5		
To eat with a small spoon unaided	5		
To put on dress unaided		10	
To put on coat unaided			
To care for self at toilet		1,10	
Buttoning		24	
Zipping		1,24	
To put on underwear unaided		10	
To control aberrant behavior		47	50

[1] Exceptional Child Research Program Materials

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[1]Language:			
(2) To perform the skills necessary to making speech sounds i.e., controlled: breathing tongue, lip, teeth, and mouth movement	1,3,5, 9,10,13	24,26,27	
(2) To imitate a sequential action involving a coordinated motor behavior followed by a vowel sound	1,3,5, 13	24,27	
(3) To pronounce approximately the sounds required for:			
* long and short vowels	1,3,5,8, 9,14,17, 18,22	47,50	27,58,70,71
* single consonant	1, 3,5,8, 9,14,17, 18,22	19,47	27,50, 58, 70, 71
* consonant clusters	1,3,5,9, 14,17,18, 22	19,47	27,50,58,70
* dipthongs	1, 3,5,9, 14,17,18,22	19,47	27,50,58,70,71

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[1]Language:			
(4) To pronounce precisely the sounds required for:			
* long and short vowels	1,3,5,9, 14,15,16, 17,18,19	37,43,47,48, 50,51,56	27,54,58,61,68,69, 70,71
* single consonants	1,2,5,9, 14,15,16, 17,18,19	37,47,48,51, 56	50,58,61,68,69,70,71
* consonant clusters	1,3,5,9, 14,15,16, 17,18,19	37,48,51	27,50,58,61,68,69,70
* dipthongs	1,3,5,9, 14,15,16, 17,18,19	37,48,51	27,50,58,61,68,69,70,71
(5) To imitate precisely consonant/vowel and vowel/consonant sound chains			
* singly	1,3,4,9,15, 17,18,19	42,47,48, 52,53	50,58,61,71
* in identical pairs	4,15,19	17,48,52	
(6) To imitate precisely one-, two-, and three-syllable words	4	3	50

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[1]Language:			
(7) To imitate one-, two-, and multi-syllable words including nouns and participles presented verbally and represented by a picture	4,19	10	
(8) To complete the last word (indicated by a representative picture) in a sentence that is incompletely presented	7	44	61
(9) To respond when presented with a picture and the question, "What is this?", with a :			
* one-syllable word		44,46	10,61
* two-syllable word		44,46	
* multi-syllable word		44,46	
(10) To imitate speech patterns of the form:			
* article-noun	2,4,6,7, 11,20	5,17,46,48, 52	10,61,75
* verb-participle			61,75
* verb-article-noun	2,4,6,7, 11,20	5,17,46,48, 52	61,75

-72- 78

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[1]Language:			
(10) To imitate speech patterns of the form:			
* noun-verb-participle	2,4,6,7, 11,20	5,17,46,48, 52	61,75
* pronoun-verb-article-noun	2,4,6,7,11, 15,20	5,46,48,52	61,75
* article-noun-verb-participle			61,75
(11) To describe a picture using:			
* pronoun-verb-article-noun	2,4,6,7, 11,15	19	
* adjective-noun-verb-participle	2,6,7,11, 15	4,19	
(12) To complete a sentence using a participle	2,7,11		

[1]Exceptional Child Research Program materials; numbers in ( ) refer to lesson number

TABLE SII (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[2]Visual Perception:			
Visual-Motor			
To draw a line between two objects from left to right within straight, curved, and angular paths	2,3,4,6,7 (I)	12 (I),25, 31 (I), 34 (I), 44 (I), 46 (I)	7 (II,III),24(I), 34 (II), 44 (II), 46 (II),57(I),60(I,II), 63(I),69(I)
To trace broken lines both along and on curved, angled, and multi-directional paths	2,4,6	7 (II), 25	7 (III),24(I),34(II), 44 (II),57(II),60(II), 63(II)
To draw lines in vertical, horizontal, slanted, and curved directions from:			
* a definite starting point with no definite end point	4,7 (I)	12 (I), 25, 34 (I), 44 (I), 46 (I)	7 (II),24(I),34(II), 44 (II),57(I),60(I), 63(I),69(I)
* an indefinite starting point to a definite end point	7 (I)	12 (I), 25, 34 (I), 44 (I)	7 (II,III),24(I),34(II), 44 (II),46 (I),57(I), 60 (I),63(I),69(I)
* a definite staring point to a definite end point	7 (I)	12 (I), 25, 34 (I), 44 (I)	7 (II,III),24(I),34(II), 44 (II),46 (I),57(I), 60 (I),63(I)
To color a figure and remain within its boundaries	7	34,44	24,46,60

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[2]Visual Perception:			
Figure-Ground			
To discriminate and draw around the outline of:			
* intersecting identical figures	7 (I,II)	12 (I), 31 (I), 34 (I)	7 (III), 34 (II), 44 (I,II), 46 (I), 60 (I,II)
* figures disguised within a large dissimilar one	7 (I,II)	12 (I)	34 (II), 44 (I,II), 46 (I), 60 (I,II)
* identical and dissimilar overlapping figures	7 (I,II)	12 (I)	7 (III), 34 (II), 44 (I,II), 46 (I), 60 (I,II)
To draw a line that provides missing parts and thus completes a figure specified by an identical example	7 (II)		7 (III), 44 (II)
To discriminate:			
* the seperate disassembled parts of a figure specified by an assembled example	7 (II)		44 (II),60(II)
* similar and dissimilar figures	7 (II)		7 (III), 44 (II),60(II)
* the figure and background of a complex picture	7 (II)		7 (III), 44 (II)

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[2] Visual Perception :			
Perceptual Constancy			
To select shapes, identical to one specified in an example, from a group of similar and dissimilar shapes		34 (I),44(I)	44 (II),60 (I)
To select shapes while using the concepts big, small, and middle in a comparative way		34 (I),44(I)	7 (I), 44 (II),46 (I), 60 (I)
To select shapes identical in size using the concepts big, small, and middle in a comparative way			44(II)
Position in Space			
To select shapes, positioned identically to or different from one specified by an example		34 (I)	44 (I,II),46(I), 60 (I)
To select shapes identical in or different in detail to one specified by an example		34 (I)	44 (I,II),46(I), 60 (I)
To complete the remaining half of single- or double-mirror patterns			

[2] Frostig Visual Perception materials; Roman Numerals in ( ) indicate either level I,II,or III.

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[3]Language:			
Action & Identity Statements			
Identification of Objects	2,4,11, 12,23	19,28,31,32,34,36, 37,40,43,44,45,49	46,50,57,59,60,62,63,64,65, 66,67,72
Use of Participle	2,12	36,37	
Concept: yes, no, not	2,14,23	19,28,31,32,34,36, 37,40,43,44,45,49,	46,50,57,59,60,62,63,64,65, 66,67,69,72
Statement: pronoun, verb, object	2,12	19,28,29,31,32,34, 36,37,40,43,44,[illegible],49	46,50,57,59,60,62,63,64,65, 66,67,69,72
: subject, is/is not, participle, object		36	
: Subject, can/cannot participle, object	2,14	36	
Prepositions			
Over	7,15,23		
On			
In		19,28,36,37,40	3[illegible],44,50,60,62,64,67
Under			
Next to		19,28,36,40	44,60
In front of		28,40	44,60

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[3] Language:			
Prepositions			
In back of		36	
Between			
Statement: subject, can/cannot or is/is not, prepositional phrase		19,28,32,36,37,40,44	34,50,60,62,64,65,67,72
Polars			
Long - not long	2,7,11,14,23	19,28,29,31,32,34,36,37,40,44,45,49,	50,59,60,62,63,64,65,66,67,72
Full - not full	2,7,11,14,23	36	
Big - not big	2,7,11,14,23	19,28,31,32,34,36,37,40,44,45,49	50,59,60,62,63,64,65,66,67,72
Long - short		19,28,36,40	44,60,64
Full - empty		19,28,36,40	44,60,64
Big - little		28,36,40	
Loud - soft		28,36,40	34,44,50,60,62,64,65,67,72
Tall - short		26,36,40	
Fat - skinny		36	
Hot - cold		36	

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[3] Language:			
Polars			
Rough - smooth		36	
Straight - crooked			
Fast - slow		36	
Heavy - light			
Wet - dry			
Old - new			
Soft - hard			
Old - young			
Light - dark			
Use of Plural			
Statement: pronoun, is/are, participle/object			
Multiple atributes			
Pronouns			
This			
These		36	

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
3 Language:			
Pronouns			
He - she			
They			
Classification of objects by category			
Vehicles			
Food			
Containers			
Animals			
Buildings			
Clothing			
Functions of categories			
Differentiating between functions of categories			
Identification of Parts			
Tools & utensils			
Clothing			
Containers			

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[3] Language:			
Identification of Parts			
Vehicles		15,36	
Foods	2	15,19,28,31,32, 34,36,37,40,44	50,59,60,62,63,64,65, 66,67,72
Furniture			
Animals & Plants		36	
Human Body			
Functions of parts			
Missing parts			

[3] DISTAR Language Instructional System

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[4] Arithmetic :			
Counting			
By rote from:			
1-8	2,7	55	60
1-9			34
1-10			34
Events & objects			
1-5	2,7		34
1-7	2,7		34
1-10			34
Matching Linear Patterns of Shapes			
Identical size but different colors	2		34
Different color and size	2		34
Identical color but different size	2		34
Different shapes of differe color and size			34
Matching Numeral with Appropriate Set of Objects			34
Identification of Numerals			
6			34
4			34

[4] DISTAR Arithmetic Instructional System

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[5] Basic Skills :			
To identify the 8 basic colors and the color white	2,4	5,18,45	24,44 ,46
To identify the numerals:			
1-4	2	1,2,4,5,12,18, 40,49,	24,44
5-9	7	4,5,18,40,49,	24,44
10-20		5	
20-25		5	
Count objects			
1-4		5,42	10
5-10		5,42	
Write numerals			
1-4		40,49	
5-9		40	
10-15		40	
Recite alphabet in order		2,41	46
Identify entire alphabet			
Large letters		5,40,51	44
Small letters		5,40	
Identify 20 parts of the body			10,24 ,75

TABLE SI1 (cont'd)

Skills	Child Accomplishing 1971-72	Child Accomplishing 1972-73	Child Accomplishing 1973-74
[5] Basic Skills			
Identify 5 common geometric shapes		4,5	
Recite verses of 4 lines or more		5	
To pronounce, approximately, one- and two-syllable words:			
50		1	
100			
150			
200			10
250			
300			
Writing:			
with assistance of frame			24
independently			

[5] Materials developed by the Early Childhood Education Project

TABLE SI2

Early Childhood Education Project
Description of Participants
Specialized Component

Student	Sex	Age	Participation Dates	[1]VSMS ; BCI[2]
1	M	5-2	9/71 - 6/73	-2.5 (-4.0 in communication skills)
2	M	4-11	" - 3/73	-1.5; 56
3	M	5-7	" - 6/73	-1.0 (-4.0 in communication skills)
4	M	4-11	10/71 - "	- .8 (-2.0 in communication skills)
5	M	2-6	" - "	-1.0
6	F	5-11	" - 6/72	-1.5; 84
7	M	10-0	" - 2/74	-2.0 (-5.0 in communication skills); 38
8	F	4-8	" - 12/71	- .7 (-3.0 in communication skills)
9	M	3-1	" - "	- .5 (-1.5 in communication skills)
10	F	2-6	" - 6/74	- .8 (-1.5 in communication skills)
11	F	5-7	11/71 - 6/72	34
12	M	4-3	2/72 - 6/73	- .8; 53
13	M	2-1	" - 6/72	
14	M	5-10	" - "	38
15	M	4-9	" - "	32
16	F	5-9	" - "	53
17	M	3-3	3/72 - "	(Receiving special materials for language only)
18	M	5-6	" - "	(Receiving special materials for language only)
19	M	5-2	4/72 - "	12
20	M	5-9	" - "	24
21	M	5-4	" - "	27
22	F	2-7	" - 1/73	(Receiving special materials for language only)
23	F	6-6	" - "	44

TABLE SI2 (cont'd)

Student	Sex	Age	Participation Dates	[1]VSMS ; BCI[2]
24	M	5-4	9/72 - 6/74	
25	F	6-3	" - 1/73	
26	M	2-11	" - 2/73	
27	F	3-6	"	
28	M	5-7	" - 4/73	40
29	M	5-0	" - 1/73	19
30	M	5-0	" - 6/73	42
31	M	5-10	" - "	44
32	M	5-3	" - 3/73	27
33	M	5-1	" - 6/73	
34	M	5-8	" - 2/74	48
35	F	5-10	" - 2/73	46
36	F	5-10	" - 6/73	18
37	M	4-0	" - 2/73	
38	M	5-0	" - 6/73	81
39	M	4-2	" - 2/73	
40	F	5-1	" - 6/73	35
41	F	3-2	" - "	
42	F	3-0	" - 11/72	(Receiving special materials for language only)
43	M	5-4	10/72 - 3/73	51
44	F	5-7	11/72 - 6/74	58
45	M	5-5	" - 6/73	49
46	M	3-11	" - 6/74	85
47	M	3-1	" - "	
48	M	3-10	12/72 - 11/73	
49	M	6-4	" - 6/73	55

TABLE SI2 (cont'd)

Student	Sex	Age	Participation Dates	[1]VSMS ; BCI[2]
50	F	3-11	12/72 - 6/74	
51	F	5-9	" - 6/73	41
52	F	5-10	1/73 - "	(Receiving special materials for language only)
53	M	5-11	" - "	
54	M	3-7	2/73 -	
55	M	4-5	3/73 - 6/73	
56	M	5-2	" - "	22
57	F	5-0	9/73 - 2/74	33
58	M	4-1	" - 4/74	25
59	M	5-11	" - 6/74	49
60	M	6-0	" - "	60
61	M	2-8	" - "	
62	M	5-0	" - "	33
63	M	5-7	" - 2/74	47
64	F	5-4	" - 6/74	50
65	M	5-2	" - "	32
66	M	5-5	" - 4/74	45
67	F	5-8	" - 6/74	54
68	F	3-10	10/73 -	
69	M	3-0	" - "	69
70	M	5-4	" - "	
71	F	3-0	" - "	
72	F	4-10	" - 4/74	38
73	M	4-1	" - "	
74	F	2-2	11/73 -	-.7
75	F	3-9	12/73 -	

[1]Vineland Social Maturity Scale social age compared to chronological age of participant.
[2]Basic Concept Inventory: score $\geq$ 40 is indicative of potential learning problems.

Basic Component - Teaching

This facet of the Early Childhood Education Project was the pivotal one for it was through this component that the program was operationalized. The best planning on the part of the management staff, the finest curricular materials, and the scheme devised for evaluative purposes would have been to no avail if this element of the program, the community coordinators who made home visits to the participating families, failed to function adequately. The objectives pertinent to this area are outlined in Table T1. Evaluation data which bore upon the accomplishment of these objectives arose from the following sources:

* Response by the participating parents on the Project Parent Survey Questionnaire (PPSQ) for first-, second-, and third-year participants.
* Baseline and interval monitoring data with regard to the accomplishment of individual instructional objectives for all 3, 4, and 5 year old children participating in the program.
* Participation on the part of the teaching staff during the Project weekly staff meetings.
* Referral forms indicating children who might profit from specialized educational materials.
* Data with respect to the attendance of participating parents and children at Project reading "parties".
* Data regarding families who have discontinued participation in the program.

TABLE T1
Early Childhood Education Project
Teaching Objectives
Basic and Specialized Components

Product

Community Coordinators are charged with the responsibility:

1. to explain the purpose and procedures of the entire program to the satisfaction of the participating parents in the parents' home within 3 visits;

2. to explain each lesson to the satifaction of each participating parent in the parents' home within 1 visit (or within the number of visits devoted to a particular lesson). The coordinators should not be required to use other home visitations to clarify previous lessons;

3. to model instructional procedures relevant to the Project lesson packages to the satisfaction of each child's parent at the request of the parent including ways of teaching, methods of encouraging the child, techniques for praising the child's work, means of helping the child to judge the value of his own accomplishments, and ideas of other educational materials to use for a given lesson;

4. to evaluate bi-weekly, in conjunction with the participating parent in the home, each child's progress on instructional objectives. This procedure will include pre- and post-evaluation whether a child can perform instructional objectives as well as evaluation on selected objectives for which individualized materials can be provided;

5. to identify, on a periodic basis for referral to staff educational program specialists, project children exhibiting potential handicapping conditions;

6. to evaluate children's performance in small group situations relevant to the Project instructional objectives designated for evaluation in that particular group learning experience by observing the child and using checklists to monitor each child's progress during reading "parties";

7. to assist any parent in contacting medical and social agencies at local and state levels if the parent requests such help.

Process

8. As a consequence of Project operation, parents will be encouraged to function independently in stimulating their children's growth and development toward their own potentials by building

upon the basic lessons provided by the program such that they are able to structure additional learning experiences in the home for the child.

9. As a result of being presented with Project teaching procedures and lesson materials to participating parents, the teaching skills of parents will be strengthened.

10. Vertical diffusion of changed attitudes and behavior toward learning within the family, on the part of brothers and sisters of participating children, will occur as a result of Project operations.

11. Parents will exercise initiative, as a consequence of participating in the Project, in identifying the educational content in at least two events that occur in the home.

12. Parents will use at least one activity from each of the Project lesson packets to teach their children specific skills for each lesson presented in the parents' home.

13. Community coordinators will provide children with basic reading, mathematical, physical, and social self-help skill readiness by presenting a lesson, on a bi-weekly basis, to each participating family assigned to them. The intent of this objective is to help prevent the learning continuum of participating children from being interrupted or delayed.

14. Community coordinators will conduct at least 3 learning activities with small (6 member) groups of children and parents during the Project operational year.

The Project Parent Survey Questionnaire (PPSQ)

{Objectives 1,2,3,7,8,9,10,11&12}

An integral part of the evaluation scheme of the Early Childhood Education Project revolved around the attitudes and feelings of the participating parents toward the procedures and materials offered by the program. The initial effort in this regard consisted of a survey questionnaire which was deployed after two months of Project operation, after three lesson packages had been presented, and after three home visitations had been made. The questionnaire was hand delivered during the fourth home visitation period and collected during the immediately following fifth visitation period.

That administration of the PPSQ was considered as a pilot study and field test of the document. The return rate of completed surveys was 62% and that sample of responses was a self-selected one. Although each participating family was given a copy of the questionnaire by the family's community coordinator and asked to complete it, no concerted attempt was employed to have the survey instruments returned on any other than a voluntary basis. That latter process was commensurate with the basic nature and ideology of the Project, i.e., voluntary participating.

As a result of the technical limitations of the initial survey of participating parents' reactions to the program, and in accordance with the Project's evaluation plan, a second survey of parental opinions and judgements was taken near the end of the home visitation period, May 1971. A random sample of 175 participating families was drawn; that number of respondents was chosen to insure a $p \leq .01$ that the proportion of responses in a given direction would be within ±10% of a chance distribution, i.e., 50-50%. Almost all (91%) of the selected parents responded.

During November 1972, a third survey of parental attitudes toward the Project was taken. A random sample of 150 parents was selected to insure a $p \leq .01$ that the proportion of responses in a given direction would be within ± 10% of a 65-35% distribution. A second consideration in drawing a sample of this size was that of insuring adequate representation of both first- and second-year participants within the sample. Most (74%) of the selected participants responded and the proportion of respondents in the sample, who represented given years of participation, was within 6% of those same proportions in the entire Early Childhood Education Project population. A fourth survey of parental attitudes was gathered during May 1973. A random sample of 151 participants was selected in order to yield the same assurance of response as that desired on the November 1972 survey. Nearly all (90%) of the selected parents responded and the sample proportions representing first- and second-year participants were within 8% of those same proportions in the Project population.

Finally, in February 1973, a fifth survey was taken. That particular time was choosen for two reasons: to assess parental opinions and attitudes at mid-year, and to assess participants' reaction to the program at a time when, according to the coordinators, enthusiasm toward the program would be at an ebb. For this survey, a random sample of 151 first- and second-year participants was drawn and all third-year parents were surveyed. Most (87%) of the persons surveyed responded and the sample proportions of first- and second-year families who responded were within 1% of their respective proportions in the population. All third-year families responded. The results of those five surveys are displayed in Table T2.

Results of the five studies indicated that most (86% or more) of the returned questionnaires were completed by mothers of the participating children and most (75% or more) had one child enrolled in the program. The outcomes of those surveys were particularly striking.

One striking outcome was that the patterns of replies of the respondents in the first survey (11/71) and those of the first-year participants comprising the third survey (11/72) were much alike. This would seem to both confirm the adequacy of the "self-selected" sample and to manifest the fact that new participants in the program experienced similar successes and difficulties. In particular, the new participants would have liked more assistance from the staff with respect to:

* being shown other ways of teaching lesson tasks,
* being provided with more suggestions for educational materials to use in helping them teach,
* additional ways of encouraging children to work on lesson activities being demonstrated,
* mentioning other ways for parents to praise their children's work,
* being given more ideas of ways to help children judge the value of their work,
* enjoying (and perhaps, by implication, feeling relaxed and comfortable while participating in) reading "parties".

In addition, the proportions of second-year respondents replying in a favorable direction were usually higher than those of the first-year respondents on this third survey.

A second impressive outcome of those surveys was that of the relationship between the response patterns of second-year participants and those parents who answered the questionnaire after one year of participation. Comparing the responses of second-year families on survey three (11/72) with those of first-year parents on surveys two and four (5/72 & 5/73), it seemed, for the

most part, that those areas of initial difficulty appeared to have been alleviated, and it seemed as if parents became more self-sufficient and confident teachers as their time of participation lengthened. Moreover, the number of responses in a "favorable" direction of second-year participants was significantly higher than the number of "favorable" responses of parents who participated for just one year when viewed over the entire scope of the three surveys (sign test $Z = 4.276$, $p \leq .0005$).

A third striking outcome involved the response patterns of parents during the first year of participation and into the second and third years of participation. In comparing the responses of second-year participants on the fourth survey (5/73) with their responses on the third survey (11/72), the proportion of favorable response remained constant or increased on about ½ of the questions and, for those questions on which the proportion of favorable response decreased, the average decrease was 8%. Continuing that analysis, it was found that on ½ of the questions, the proportion of favorable response remained the same or increased and on ½ of the questions, the proportion of favorable response decreased when comparing the responses of third-year participants on the fifth survey (2/74) to those of second-year participants on the fourth survey (5/73). Because of the variability in the proportion of favorable response manifested by second- and third-year participants, it was important to view specific aspects of the program in detail from an overall perspective (beginning of first year - 11/72, beginning of second year - 11/72, end of second year - 5/73, middle of third year - 2/74). Those aspects are summarized in Table T3.

The fourth general outcome from this longitudinal survey of parental feelings toward the Project was that certain areas of operation remained problematic. Specifically, those areas included:

* providing parents with additional ways of helping their children to judge the value of their own work (objective 3);

* providing better liaison between participants and various community and governmental social service agencies for those parents who request such assistance (objective 7);

* assisting parents in identifying things in their home that could be used as learning activities for their children (objective 11);

* clarifing the voluntary aspects of participation in the Project;

* providing a more varied system of dispensing the check-out books and extra learning activities such that the individual desires of participants, with respect toward receiving those items, can be more adequately met;

* infusing a change in attitude toward learning on the part of older children in the family (objective 10).

During the first year of the operation of the Project, an attempt was made to remedy some of those difficulties by means of training workshops conducted during the weekly staff meetings. Since that procedure was less than totally successful, an alternative process was designed. "Curriculum committees" were established in each of the three school districts served by the Early Childhood Education Project. Those committees were comprised of participating parents and met once every three months (with the conditional limitation that one committee met each month). The responsibility of those groups was to critique the Project curriculum and teaching processes and, hence, they provided direct, detailed feedback regarding the operation of the program to the management staff. That procedure enabled the program staff to more directly, quickly, and sufficiently meet the curriculum and teaching needs of individual participants. Since those committees have been in operation some improvement was noted with respect to the proportion of participants who were able to identify things in their home that could be used as learning activities for their child, some improvement was seen regarding the check-out items provided by the Project, and some improvement occurred in the area

of assisting participants in contacting medical or social service agencies.

The responses of participants with regard to the Project providing parents with additional ways of helping their children judge the value of their own work, and with respect to changing the attitudes toward learning of older children in the family showed the following pattern. At the beginning of the first and second years of participation, the favorable response was moderately high; by the end of the second year and into the third year of participation, the favorable response had tapered off. That same response pattern was also manifested with respect to: enthusiasm toward the Project, clarity and understandability of Project lesson presentation, demonstration of Project lesson activities, initiation of other learning experiences by participants after using Project activities, Project lessons assisting and strengthening participant teaching skills, and Project lessons allowing participants to teach their children as they wish. One possible explanation that would account for those response patterns might be the fact that, as the participating child moves toward a higher level of skill mastery and as he approaches 6 years of age, the Project curriculum provides activities that are more closely related to activities traditionally dealt with by the regular school, and less closely related to events that occur in the home. Coupled with that is the fact that the majority of participants do not feel free to leave out any of the activities that are provided in the Project lesson packages, and, indirectly, the fact that a moderate spate of families terminated participation and enrolled their children in kindergarten when they reached 5 years of age. Thus, the situation may accrue wherein participating parents feel obligated, for whatever reasons, to be teachers of learning activities with which they feel uncomfortable or with which they feel less capable of dealing. On the other hand, or perhaps as a corollary to the previous explanation, it may be the

case that participating parents feel that those activities traditionally dealt with by the regular school properly belong within that domain. Thus, they may feel some resentment, as well as frustration, with being provided with learning activities which are the "duty" of someone else to teach.

TABLE T 2
PARENT SURVEY QUESTIONNAIRE RESULTS

Related Teaching Objective	Inquiry	Desired General Direction of Favorable Response	% Favorable								
			1st Year						2nd Year		3rd Year
			11/71[1]	5/72[1]	11/72[1]	5/73[1]	2/74[1]	11/72[1]	5/73[1]	2/74[1]	2/74[1]
	How enthusiastic about the Early Childhood Education Project are you?	Very	96*	93*	85*	95*	89*	97*	93*	83*	91*
	The kind of enthusiasm you feel toward the Project.	Favorable	--	91*	92*	95*	88*	98*	97*	98*	90*
1	Have the purposes and procedures of the Project been explained to your satisfaction?	Yes	96*	94*	94*	98*	99*	100*	100*	93*	100*
2	After the Project lessons have been presented, do you feel that more explanation is required in order to make them clear and understandable?	No	91*	85*	85*	82*	88*	97*	82*	83*	84*
3	Would you like to have more demonstration of any of the Project lesson activities that have been given to you?	No	90*	89*	90*	80*	95*	98*	79	88*	81*
3	Would you like to have the Project staff: a. Show you other ways of teaching any of the lesson tasks outlined on the lesson sheets?	No	80*	88*	79	91*	100*	92*	92*	100*	95*
	b. Provide you with more suggestions of educational materials to use in helping you teach a lesson task?	No	78	87*	81*	93*	95*	95*	95*	98*	91*
	c. Suggest additional ways of encouraging your child to work on the lesson tasks?	No	75	79	77	91*	99*	92*	88*	93*	88*

TABLE T2 (cont'd)

Related Teaching Objective	% "NO OPINION" & NO RESPONSE								
			1st Year			2nd Year			3rd Year
	11/71	5/72	11/72	5/73	2/74	11/72	5/73	2/74	2/74
	2	1	4	-0-	9	-0-	1	12	5
	--	8	4	-0-	9	2	1	12	5
1	2	4	2	2	1	-0-	-0-	5	-0-
2	4	5	4	2	1	-0-	5	7	-0-
3	4	9	8	7	4	2	16	12	7
3	15	9	17	4	-0-	8	7	-0-	5
	14	9	10	4	1	2	4	2	5
	8	9	10	2	1	3	4	2	5

TABLE T2 (cont'd)
PARENT SURVEY QUESTIONNAIRE RESULTS

Related Teaching Objective	Inquiry	Desired General Direction of Favorable Response	% Favorable								
			1st Year					2nd Year		3rd Year	
			11/71[1]	5/72[1]	11/72[1]	5/73[1]	2/74[1]	11/72[1]	5/73[1]	2/74[1]	2/74[1]
	d. Mention more ways of praising your child's work?	No	74	82*	71	86*	84*	89*	92*	93*	87*
	e. Provide more ways of helping your child to judge the value of his work?	No	64	66	79	71	75	76	68	62	63
7	If you requested help in contacting any medical or social service agencies did the Project Staff give you enough assistance in obtaining that help?	Yes	$^{2}32$	$^{2}28$	$^{2}33$	$^{2}36$	$^{2}50$	$^{2}33$	$^{2}50$	$^{2}42$	$^{2}53$
8	Did the lessons and activities bring to mind other learning experiences which you could use to teach your child?	Yes	84*	83*	75	84*	83*	81*	74	71	66
9	Did the Project lessons and activities assist and strengthen your teaching skills?	Yes	89*	89*	90*	88*	99*	98*	88*	93*	90*
10	a. Changed the attitude toward learning of older children in your family?	Yes	$^{3}38$	$^{3}48$*	$^{3}54$	$^{3}38$	$^{3}71$	$^{3}50$	$^{3}49$	$^{3}45$	$^{3}44$
	b. Your opinion of the kind of change.	Better	$^{3}47$	$^{3}61$	$^{3}61$	$^{3}67$	$^{3}77$	$^{4}60$	$^{3}60$	$^{3}68$	$^{3}48$

TABLE I 2 (cont'd)

Related Teaching Objective	% "NO OPINION" & NO RESPONSE								
	1st Year					2nd Year			3rd Year
	11/71	5/72	11/72	5/73	2/74	11/72	5/73	2/74	2/74
	16	11	17	4	4	6	7	5	7
	14	13	10	5	11	6	18	21	20
7	263	250	2-0-	257	210	233	240	225	235
8	4	6	4	5	3	3	16	7	8
9	3	8	8	2	1	3	8	5	9
10	a 36 b 3	3 16	3 18	3 8	3 6	3 12	3 18	3 9	3 10

TABLE T 2 (cont'd)
PARENT SURVEY QUESTIONNAIRE RESULTS

Related Teaching Objective	Inquiry	Desired General Direction of Favorable Response	% Favorable								
			1st Year						2nd Year		3rd Year
			11/71[1]	5/72[1]	11/72[1]	5/73[1]	2/74[1]	11/72[1]	5/73[1]	2/74[1]	2/74[1]
11	Did the Project lessons and activities help you to identify things in your home that could be used as learning activities for your child?	Yes	82*	47	46	88*	92*	41	68	81	75
12	Were the Project lessons fun and enjoyable:										
	a. For you (the parents)?	Yes	91*	85*	81*	86*	99*	86*	83*	86*	91*
	b. For your children participating in the Project?	Yes	97*	87*	92*	89*	99*	98*	86*	95*	91*
12	Do you feel that the lessons and activities make it possible for you to teach your child as you wish?	Yes	70	90*	88*	84*	97*	94*	87*	93*	84*
12	Was the language used in the lessons understandable to you?	Yes	99*	94*	100*	96*	99*	98*	96*	100*	95*
	Were the Project reading "parties" fun and enjoyable:										
	a. For you (the parents)?	Yes	--	81*	65	[4]90*	[4]91*	89*	[4]92*	[4]78	[4]86*
	b. For your children participating in the Project?	Yes	--	89*	71	[4]94	[4]88*	94*	[4]94*	[4]86*	[4]97*
	Do you feel free to leave out any of the activities that are provided in the Project lesson packages?	Any and All	39	7	19	18	9	27	9	7	26

TABLE T2 (cont'd)

Related Teaching Objective	% "NO OPINION" & NO RESPONSE								
			1st Year			2nd Year			3rd Year
	11/71	5/72	11/72	5/73	2/74	11/72	5/73	2/74	2/74
11	4	9	8	7	3	8	17	17	16
12	2	6	2	5	-0-	3	7	7	8
	1	5	-0-	2	1	3	5	2	7
12	19	5	-0-	9	1	2	7	2	5
12	-0-	4	-0-	4	1	-0-	4	-0-	4
	--	13	33	4_2	4_9	6	4_5	4_{14}	4_7
	--	10	29	4_2	4_{11}	5	4_3	4_{14}	4_8
	10	11	8	11	3	-0-	4	5	4

TABLE T 2 (cont'd)
PARENT SURVEY QUESTIONNAIRE RESULTS

Related Teaching Objective	Inquiry	Desired General Direction of Favorable Response	% Favorable								
			1st Year						2nd Year		3rd Year
			11/71[1]	5/72[1]	11/72[1]	5/73[1]	2/74[1]	11/72[1]	5/73[1]	2/74[1]	2/74[1]
	With regard to the check-out items provided by the Project:										
	a. More should be provided		71	43	42	25	17	54	38	21	23
	b. Enough are provided		--	--	--	70	67	--	53	64	52
	c. Less should be provided		14	11	14	-0-	5	16	3	-0-	9
	Do you feel that these questions ask you to give opinions that you would rather keep to yourself?	NONE	86*	89*	88*	91*	86*	92*	92*	88*	82*

[1]The number of respondents for the Fall 1971 results is 220/335, i.e., 62%, and is a self-selected sample; the number of respondents for the Spring 1972 results is 160/175, i.e., 91%, and is a random sample; the number of respondents for the Fall 1972 results is 111/150, i.e., 74%, and is a random sample; the number of respondents for the Spring 1973 results is 136/151, i.e., 90%, and is a random sample; the number of respondents for the mid-year 1974 results is 198/228, i.e., 87%, and is a random sample.

[2]91% of the respondents (Fall 1971), 89% of the respondents (Spring 1972), 94% of the first-year and 95% of the second-year respondents (Fall 1972), 75% of the first-year and 87% of the second-year respondents (Spring 1973), and 88% of the first-year, 71% of the second-year, and 78% of the third-year respondents (mid-year 1974), indicated that they did not request such help; the reported proportion is representative of those persons who did request such assistance.

[3]13% of the respondents (Fall 1971), 38% of the respondents (Spring 1972), 42% of the first-year and 33% of the second-year respondents (Fall 1972), 54% of the first-year and 41% of the second-year respondents (Spring 1973), and 59% of the first-year, 49% of the second-year, and 35% of the third-year respondents (mid-year 1974), indicated that there were no older children in the family; the reported proportions are representative of those families that have older children.

[4]9% of the first year and 13% of the second year respondents (Spring 1973), and 3% of the first-year, 17% of the second-year, and 9% of the third-year respondents indicated that they had not attended a "reading party"; the reported proportions are representative of those families that had attended a "reading party".

* Criterion is set at a favorable response of at least 80%.

-- No data available.

TABLE T2 (cont'd)

Related Teaching Objective	% "NO OPINION" & NO RESPONSE								
	1st Year					2nd Year			3rd Year
	11/71	5/72	11/72	5/73	2/74	11/72	5/73	2/74	2/74
a	15	46	44	5	11	29	5	14	16
b									
c	8	8	12	9	14	6	5	12	16

TABLE T3

EVALUATION OF SELECTED FACETS OF THE OPERATION OF THE PROJECT
BY PARTICIPATING PARENTS

FACET	SURVEY OUTCOME	EXPLANATION
Enthusiasm for the Project.	Initially high; tapers off slightly at the end of the second year and into the third year.	Moderate Hawthorne effect.
Explanation of the purposes and procedures of the Project.	Initially and continually well done.	Increased familiarity over time.
Clarity and understandability of Project lesson presentation.	Initially well done; more explanation appears necessary toward the end of the second and into the third year.	May parallel increased complexity of the lessons and introduction of activities akin to those of the classroom; e.g., reading readiness.
Demonstration of Project lesson activities:		
General:	Initially high; more demonstration appears necessary toward end of second year and into third year.	See comment under "Project lesson presentation," above.
Alternative ways of teaching:	Initially less than adequate; increasingly well done through third year.	Positive effect of community coordinator training; increased teaching excellence over time as coordinators gain more experience and as parents become more confident of their own ability.
Additional suggestions of educational materials to use:	Initially and continually well done.	See comment under "alternative ways of teaching," above; also, infusion of "Resource Catalog" into curriculum.
Additional suggestions of ways of encouraging child to work:	Initially less than adequate; increasingly well done through third year.	See comment under "alternative ways of teaching," above; also, positive effect of parent critique of curriculum.
Additional suggestions of ways of praising child's work.	Initially less than adequate; increasingly well done through third year.	See comment under "encouraging child to work", above.

TABLE T3 (cont'd)

FACET	SURVEY OUTCOME	EXPLANATION
Other learning experiences initiated by participating parents as a result of using Project activities.	Adequate for first-year participants; fewer other learning experiences are initiated by second- and third-year participants.	Moderate Hawthorne effect; see, also, comment under "Project lesson presentation," above.
Project assists and strengthens teaching skills of participating parents.	Initially well done and increased to beginning of second year; teaching skills are assisted and strengthened less toward end of second year and into third year.	See comment under "Project lesson presentation," above.
Project lessons fun and enjoyable:		
Participating parents:	initially and continually enjoyable.	Positive effect of parent assistance in curriculum; parallels growth of participating parent confidence in their teaching ability.
Participating children:	Initially enjoyable through beginning of second year; enthusiasm declines toward end of second year and into third year.	Parallels movement of curriculum from home-centered to school-centered activities as school entry becomes imminent.
Project lessons allow participating parents to teach their children as they wish.	Initially so and continues through beginning of second year; toward end of second year and into third year, fewer parents feel they are able to teach as they wish.	See comment under "Project lessons enjoyable: participating children," above.
Language used in the lessons understandable to participating parents.	Initially very much so; slightly less understandable by middle of third year.	See comments under "Project lessons enjoyable: participating parents, participating children," above; moderate Hawthorne effect.
Project "reading parties" fun and enjoyable:		
Participating parents:	Initial enthusiasm low; enthusiasm increases through second year but tapers off slightly by middle of third year.	Strangeness of initial "reading party," dampens enthusiasm; positive effect of parent assistance in curriculum development and increased confidence in teaching ability heightens enthusiasm; moderate Hawthorne effect lessens enthusiasm.

TABLE T3 (cont'd)

FACET	SURVEY OUTCOME	EXPLANATION
Participating children:	Initial enthusiasm low; enthusiasm increases steadily through middle of third year.	Strangeness of initial "reading party" dampens enthusiasm; individualized activities and open-classroom atmosphere augments enthusiasm.
Parental attitude toward responding on questionnaire.	Initially and continually high.	Parallels response relating to "enthusiasm for the Project," above; less than 100% favorable response accounted for through misunderstanding of question ("no opinion" or no response).

Performance Data Derived from the Student Evaluation Form (SEF)

{Objectives 4,5,6,12,13,&14}

The data with respect to accomplishment of 5 additional objectives and 1 previously discussed objective were somewhat less direct than that provided for the other objectives in this component. The fact that performance of participating children on instructional objectives was monitored and recorded (objective 4), that performance of children in small group situations was evaluated (objective 6), that participating parents used the Project lessons (objective 12), that community coordinators presented lessons to participating parents (objective 13), and that community coordinators conducted group learning activities (objective 14), was verified by the completion of the Student Evaluation Form (SEF) for each child in the program. Moreover, the fact that questions, problems, and possible remedies regarding the processes, which are implicit in those objectives, were constantly discussed at the Project weekly staff meetings, and that each coordinator was able to discuss at length the progress of each of her participating children, lent further support to the successful accomplishment of those objectives.

From Table T4, it may be seen that the evaluation of many of the instructional objectives evaluated at reading "parties", although improved over the 1971-72 operational year, remained inadequate. It should be pointed out, however, that this lack of evaluation was primarily due to a dearth of acceptable evaluation procedures which could be used to test those objectives, viz., objectives 28, 30-34, & 36. For those instructional objectives for which adequate evaluation procedures existed, the performance of the community coordinators was commendable. Moreover, the trend toward acceptable evaluation procedures proceeded well and the community coordinators, accordingly, performed adequately on objectives 4, 6 & 14.

During the 1971-72, 1972-73, and 1973-74 Project years, an apparent lack of use of the program lessons was experienced for some of the lessons (see Table T5). This lack of use would seem to be apparent rather than actual because of the results of the parent survey (see Table T2, specifically the questions related to teaching objectives 1, 2, 3, 9 & 12). Moreover, the proportions of first-, second-, and third-year participants using the lessons during the 1973-74 year were highly similar. Thus, it would seem that the most likely explanation for this phenomenon would be that of a data recording problem, and objective 12 may be judged to have been adequately accomplished.

During all Project operational years, the attendance at reading "parties" has remained within acceptable limits (see Table T6). For those families who were unable to attend, the most frequent explanation was that of illness in the family. That explanation appeared quite plausible since at times during a given school year the absence rates in the public schools in the area ran as high as 15%.

Table T7 summarizes the data regarding families who have terminated participation in the Project. While the rate was somewhat higher in 1972-73 than in 1971-72, the proportions of reasons given for termination remained essentially the same. It should be noted that a frequent reason for termination was that of enrolling in a "kindergarten" program (included under the "dissatisfaction with program" category). The frequency of families terminating participation for that reason was high in September of the year and pointed out, rather dramatically, one of the limitations of a home-based, parents-as-teachers educational program. Specifically, amny of those families felt that the home-based program was not providing enough "group experiences" of the type identical to those in which their children would find themselves upon entering the public schools. Nonetheless, objective 13 was accomplished.

Finally, objective 5, referral of participating children to educational program specialists, has been successfully accomplished as evidenced by the coordinators' monitoring of the participating youngsters' performance on instructional objectives and by the completion of appropriate referral forms.

TABLE T 4
COMMUNITY COORDINATOR PERFORMANCE
MONITORING OF STUDENT PROGRESS

Instructional Objectives
(evaluated in participant homes)

NUMBER	% NO OBSERVATION 1971-72	% NO OBSERVATION 1972-73
1	24	1
2	36	7
3	30	0
4	34	0
5	29	0
6	6	0
7	8	0
8	19	0
9	2	1
10	3	1
11	3	1
12	3	0
13	3	0
14	4	0
15	5	0
16	14	0
17	4	0
18	3	0
19	12	3
22	17	0
23	4	1
24	80	0
27	7	0
29	23	3

Instructional Objectives
(evaluated at reading "parties")

26	79	3
28	26	11
30	61	13
31	78	13
32	90	13
33	82	17
34	84	19
35	84	9
36	90	20

TABLE T5
PARTICIPANT USE OF LESSONS

LESSON	% USING 1971-72	% USING 1972-73	% USING 1973-74
1.	93	95	98
2.	92	98	99
3.	83	96	98
4.	95	94	96
5.	93	96	93
6.	95	96	96
7.	93	78	88
8.	89	79	89
9.	70	66	84
10.	93	71	75
11.	92	61	66
12.	78	39	71
13.	61	56	61

TABLE T 6
PARTICIPATION IN READING "PARTIES"

"PARTY"	ATTENDANCE 1971		ATTENDANCE 1972		ATTENDANCE 1973	
1.	280/348	80%	316/403	78%	329/404	81%
2.	278/355	78%	175/247	71%	282/389	72%
3.	275/354	78%	275/365	75%	296/369	80%
4.	249/356	70%	235/342	69%	295/364	81%
5.	None		None		302/357	85%

TABLE T 7
SURVEY OF FAMILIES TERMINATING PARTICIPATION

	1971-2		1972-3		1973-4	
Overall rate	42/399	11%	122/490	25%	91/456	20%
Within rate due to:						
Moving	25/42	60%	73/122	60%	50/91	55%
Personal reason	6/42	14%	18/122	15%	10/91	11%
Dissatisfaction with program	5/42	12%	19/122	16%	19/91	21%
No reason given	6/42	14%	12/122	10%	12/91	13%

Specialized Component - Teaching

The importance, the objectives pertinent to the operation, and the data relevant to the accomplishments of this element of the specialized component of the Early Childhood Education Project were generally identical to those described in the basic component report section. Hence, only specific exceptions to the discussion of the Project teaching process will be outlined. Those exceptions were ones of procedure rather than of progress and outcome. The responses to the Parent Survey Questionnaire of parents with children in the specialized component were not separated from those in the basic component. That separation was not done because of the small number of families involved when the questionnaire was deployed, because of the general nature of the questions asked, and because of the fact that families were being visited two or three times a week which gave ample opportunity for feedback to the staff regarding any problems with this facet of the program with respect to performance on, or accomplishment of, objectives 1, 2, 3, 7, 8, 9, 10, 11 & 12.

With respect to the accomplishment of objectives 4, 5, 6, 12, 13, and 14, the same comments as those presented in the basic component discussion of the teaching process generally applied. However, children were evaluated from 4 to 6 times in a bi-weekly period by the coordinators as opposed to once every two weeks (objective 4), children's progress was monitored on lesson objectives rather than Project instructional objectives (objective 6) and lessons were presented 4 to 6 times in a two-week period in contrast to once bi-weekly (objective 13). The fact of successful accomplishment of those objectives was verified by the coordinators' completion of an Individual Lesson Checklist (ILC) for each child rather than a Student Evaluation Form (SEF). Along that same line of procedural difference between the basic and

specialized components, the referral process (objective 5) occurred in reverse. That is, families who had indicated that their youngster needed specialized educational materials exclusively had been advised that the basic curriculum would be adequate and appropriate. In addition, reading "party" attendance ranged from 50%-88% for 14 such group meetings during the first and second years of Project operation. While that rate was not as frequently as high as that of the basic component, it did not seem cirtically low given the fact that many of those meetings were held at night and that home visitation occurred more frequently. During the third Project operational year, all families attended the reading "parties" offerred within the basic component.

Additional data which bore upon the success of the teaching element of the specialized component arose from the coordinator evaluation and debriefing sessions conducted by the educational specialist. At least once every two months during the first two operational years, the specialist visited selected homes with each coordinator working in the specialized component in order to observe the coordinator's presentation of a lesson and her modeling of behavior modification techniques. In addition, the specialist met with each coordinator at least once each week to check the progress of individual children and to plan future lesson activities. During the third year of operation, the specialist visited selected homes with each new coordinator at least once each month. The results of those observations have been favorable. Not only did that procedure yield good descriptive information regarding each coordinator's teaching accomplishment but it also provided a valuable on-the-job training exercise.

Basic and Specialized Component - Management

The objectives which served as guidelines for management operation are outlined in Table M1. A variety of sources contributed data which bore upon the accomplishment of those objectives. The sources included:

* A record of events of management operation contained in the Project Log.

* Responses of the participating families on the Project Parent Survey Questionnaire (PPSQ).

* Bench-mark data regarding the performance of first grade youngsters on the Project basic component instructional objectives.

* Progress data regarding the performance of program participants on the Project basic component instructional objectives.

* Ratings completed by management for each coordinator during their job application interview and for each coordinator invited to participate in a combined extended-interview/training program.

* A record of events as outlined in the minutes of meetings.

* Fiscal records comprised of purchase orders and monthly budget reports.

* A record of families enrolled in the Project contained in the Coordinator Assignment Roster.

TABLE M1

Early Childhood Education Project
Management Objectives
Basic and Specialized Components

The management staff is charged with the responsibility to:

Product

1. determine adequate checkpoints to insure adherence to Project time-frame guidelines;
2. explain, interpret, and provide feedback on the program to the staff, the school administrators of the cooperating school districts, and the community;
3. direct and coordinate the preparation of all sequential curricular materials;
4. maintain adequate records for fiscal, statistical, and curricular use;
5. prepare and submit all reports required by state and federal agencies;
6. identify and enroll eligible children who might participate in the Project;

Process

7. advise, cooperate, and act as secretary to the Community Council;
8. direct and coordinate all purchases for the Project;
9. interview and employ all staff;
10. plan and coordinate inservice training for the staff;
11. determine all staff assignments and designate staff responsibility;
12. establish a feedback method for staff involvement in decision-making;
13. direct procedures for modifying all internal/external program and staff operations;
14. schedule student selection methods;
15. coordinate open-line information transfer activities with social service agencies;
16. direct and coordinate all evaluation activities.

Performance as Recorded in the Project Log

{Objectives 1,2,5,13,14&15}

The Project Log contained much of the data relevant to the accomplishments of the management staff. From that document, successful performance in the areas outlined below was verified.

The project director, along with other appropriate members of the management staff, has reviewed the operation of the Project at least quarterly and has established time guidelines and deadlines pertinent to Project operation (objective 1).

Numerous instances of communication regarding the operation and accomplishments of the Project have occurred (objective 2). Dissemination of Project activities has been supplied by means of numerous newspaper articles, national television news coverage, national magazine articles, reports to the Community Council and school administrators, weekly Project staff meetings, and meetings with and visitation by interested professional and lay persons.

All reports required to date by state and federal agencies have been filed (objective 5).

The project director in conjunction with other members of management has reviewed the internal/external program and staff operations on a minimum of 3 times annually (objective 13).

Student selection methods were successfully scheduled and accomplished (objective 14). The methods included newspaper, radio, and television advertising, and a door-to-door canvassing of the area being served by the Project in an effort to identify potential participants. A greater number than the minimum number of participants was enrolled prior to established deadlines.

Reciprocal referral activities have occurred between the Project and other social service agencies that indirectly serve and benefit the participating families (objective 15). Those agencies included social welfare agencies, local church organizations, personnel from other public school districts, county associations concerned with education for exceptional children, state and county medical and health agencies, and state professional educational institutions. Corroborative evidence of the successful accomplishment of this objective has been given through the parent survey questionnaire.

Development of the Project Learning Activities

{Objective 3}

The task of developing curricula for children participating in the program has occupied much of the activity on the part of the management staff. Data with regard to the successful accomplishment of that task arose from a variety of modes. In all, 15 lessons for first-, for second-, and for third-year students, as well as a summer lesson packet for all three groups of students, have been produced. The content of those curricular materials was determined in part by professional judgment with respect to necessary education skills, in part by the bench-mark data collected on present first-grade children and progress data collected on Project participants, and in part by parent responses on the PPSQ regarding how well liked, how easily used, and how readily generative of other learning experiences the lessons were (see Table T2).

The professional judgement data with respect to necessary educational skills was provided by the Project director, supervisor of community coordinators, and the curriculum specialist. The bench-mark data revealed that objectives 1, 3, 5, 20, 21, 25, 28, 30, & 38 were accomplished by nearly all preschool children without having participated in a concerted preschool education program (see Tables BI1, BI2A-BI2C & BI4B). Progress data gathered on participating children guided the placement of particular learning activities in the general Project curriculum, with regard to both the age and length of participation of participants, for the skills included in objectives 2, 4, 6-19, 22, 24, 26-27, & 29-36 (see Tables BI5A, BI5B, BI6A & BI6B). Data gleaned from the parent survey and the 'curriculum committees' assisted in the general, and in many instances the specific, enhancement of the curriculum and activities provided by the program.

While limitations of the curriculum materials have also been manifested from those same three sources, the genral judgment would appear to be that objective 3 had been successfully acomplished.

TABLE M2

Community Coordinator Evaluation
Concordance of Management Staff Judgment
First Operational Year

Interview Judgment

Concordance among ratings of all coordinators interviewed

$W = .87$ $N = 30$ $\#F_{28,28} = 19.252^*$

##Concordance among ratings of coordinators selected for training

$W = .84$ $N = 18$ $\#F_{16,16} = 15.417^*$

Training Judgment

Concordance among ratings of project director and community coordinator supervisor

$W = .78$ $N = 19$ $\#F_{17,17} = 11.086^*$

Concordance among ratings of project director, community coordinator supervisor, and educational specialist

$W = .67$ $N = 19$ $\#F_{17,34} = 6.099^*$

Concordance among ratings of project director, community coordinator supervisor, educational specialist, and evaluator

$W = .52$ $N = 19$ $\#F_{17,52} = 3.205^*$

Interview vs. Training Judgment

Agreement among ratings of project director and community coordinator supervisor

$\tau = .17$ $N = 19$ $\#Z = .985$

Agreement among ratings of project director, community coordinator supervisor, and educational specialist

$\tau = .31$ $N = 19$ $\#Z = 1.759$

Agreement among ratings of project director, community coordinator supervisor, educational specialist, and evaluator

$\tau = .30$ $N = 19$ $\#Z = 1.756$

"Blind" ranking of rating forms
\# Corrected for continuity
* $p \leq .01$

Selection of Community Coordinators

{Objectives 9&10}

Interviewing and employing a staff of community coordinators and providing inservice training for them was another vital function of the management staff. During the first operational year, the project director and community coordinator supervisor interviewed the applicants for the position of community coordinator. Each prospective coordinator was rated on a variety of characteristics deemed necessary for this particular work. All applicants were then ranked, on the basis of those ratings, in terms of desirability for employment. The agreement between the project director and coordinator supervisor was significantly high (see Table M2). That ranking plus a second criterion, that of 70% favorable comment, was also employed in initially selecting the coordinators to be invited for an extended-interview/training session. Based on the interview scores of the applicants, only two applicants were satisfactory. Hence, a third criterion was utilized which was to select coordinators who resided in the same area as that in which they would be visiting homes (see Table M3). From that standpoint, all but three of the 19 individuals selected received a majority of favorable evaluative comment and the concordance between raters remained significantly high (see Table M2).

During the week-long extended-interview/training session, the prospective coordinators were again rated in terms of desirability for employment. As was the case for the interview rating, the concordance of agreement between raters was significantly high (see Table M2). Moreover, for all but three of the individuals, over 70% of the evaluative comments were favorable (see Table M3). From that group of 19 persons, 17 coordinators were selected for employment. The evaluation of the training program by the community coordi-

nators also indicated success. By the end of the week, over 70% of the coordinators responded in a positive direction regarding their ability to perform the tasks required of them (see Table M4A). It should be added that the coordinators selected to work in the specialized component received an additional week of training revolving around working with exceptional children.

And finally with respect to the employment of the community coordinators, an analysis of the ratings of the coordinators between the interview and training situations showed that both processes contributed to the success of the selection. The agreement in judgment between the interview and training sessions was low and not significant which indicated that the direction of judgment (and the corresponding ranking) changed considerably. Thus, it would not have been necessarily assured that the same individuals would have been selected had they been observed in only one or the other of the two situations.

For subsequent operational years such elaborate selection procedures for employing community coordinators were not utilized. A variety of reasons accounted for that. First of all, nearly half of the coordinators were returning from previous years. Those experienced coordinators could be utilized as part of the training workshops conducted for new coordinators. Secondly, over one half of the prospective coordinators had been recommended by the coordinator who had visited in their home and had observed them working with their children, or had been participants in the program and were recommended by an experienced coordinator who had not visited in their home but had observed them working with parents and children in other educational and recreational activities being conducted in the community. Third, many of those "well-known" potential coordinators were able to work in the summer program under the tutelage of experienced community coordinators and classroom teachers. And lastly,

only three or four of twenty individuals remained "unknown" by the management staff regarding their ability to fulfill the role of community coordinator.

Due also to the availability of the group of potential coordinators approximately one month before home visits were scheduled to begin, and because the first three lesson packages had been prepared, three weeks were available for conducting a training workshop, for canvassing the area to be served by the Project for program participants, and for becoming acquainted with the activities contained in the first lesson packet. Hence, it was decided that ample time was at hand for observing the new coordinators and for selecting replacements if necessary. Judging from the evaluation of the training program by the coordinators (see Tables M4A, M4B & M4C) and from the overall success of the performance of the coordinators, both selection procedures would seem to be highly adequate.

TABLE M3
Community Coordinator Rating by Management Staff
First Operational Year

	Interview		Training	
Code #	Raw Score (maximum = 85)	%	Average Raw Score (maximum = 48)	%
1	38	.447		
2	59	.694		
3	53	.624	37.00	.770*
4	58	.682	35.25	.734*
5	35	.412	34.50	.719
6	57	.671	36.00	.750*
7	48	.565		
8	57	.671	37.25	.776*
9	10	.118		
10	52	.612		
11	30	.353		
12	22	.259		
13	51	.600		
14	59	.694	42.00	.875*
15	47	.553	44.50	.927*
16	46	.541		
17	54	.635	38.00	.792*
18	47	.553	32.25	.672
19	40	.471		
20	41	.482		
21	38	.447	35.00	.729*
22	53	.624	37.75	.786*
23	64	.753	41.00	.854*
24	20	.235		
25	25	.294	22.00	.458*
26	52	.612	40.00	.833*
27	55	.647	34.75	.724*
28	56	.659	27.50	.573
29	53	.624	36.50	.760*
30	70	.824	43.50	.906*
31	55	.647	44.75	.932*

* Employed by the Project

TABLE M-A

COMMUNITY COORDINATOR EVALUATION OF TRAINING PROGRAM
1971-72

Day	Objective	N = 19	%
	Could conduct initial meeting with parent in home	15	.789
#1	Program policies clear	17	.895*
	More practice on initial meeting needed	9	.474
	Understand how to complete child enrollment form	19	1.000*
#2	Can organize a day's schedule	16	.842*
	Can explain function and activities of reading "party"	16	.842*
	More practice on initial meeting needed	10	.526
#3	More practice on other Project activities needed	6	.316
	Can conduct initial meeting with parent in home	18	.950*
#4	Need more practice on initial meeting	0	0.0 *

* Met criterion

TABLE M4B
COMMUNITY COORDINATOR EVALUATION OF TRAINING PROGRAM
1972-73

Day	Objective	N=11	%
#1	Could conduct initial meeting with parent in home	8	.727*
	Understand how to complete child enrollment form for:		
	new participants	11	1.000*
	returning participants	10	.909*
	More practice on initial meeting needed	7	.636
	Program policies clear	11	1.000*
#2	Can organize a schedule for:		
	home visits	8	.727*
	reading "parties"	6	.545
	Understand general nature and purposes of Project curriculum	11	1.000*
	More practice on initial meeting needed	4	.364
#3	Understand procedures of presenting a lesson to participants	10	.909*
	Understand role of community coordinator and the manner of serving participating families	11	1.000*
#4	Understand what is expected of first grade children in a school classroom	9	.900*
	Could explain how Project curriculum is:		
	related to requirements of 1st grade classroom	7	.700*
	different from requirements of 1st grade classroom	9	.900*
	More practice on initial meeting needed	3	.300*
	Understand difference between evaluative and descriptive praise	9	.900*

* Met criterion
Note: for day #4, N=10

TABLE M4C
COMMUNITY COORDINATOR EVALUATION OF TRAINING PROGRAM
1973-74

Objective	New Coordinator N=9	%	Returning Coordinator N=10	%
Could explain general policies and procedures of Project to **others** in the community	7	.778 *	10	1.000 *
Can arrange a 2-week home visit schedule	9	1.000 *	10	1.000 *
Could refer a child from the basic to the specialized component of the Project using established procedures	9	1.000 *	10	1.000 *
Role playing situations were a valuable part of the training program	6	.667	7	.700 *
Understand difference between descriptive and evaluative praise	9	1.000 *	9	.900 *
Can conduct a home visit	7	.778 *	10	1.000 *
Could evaluate participating children using established instruments and procedures	7	.778 *	10	1.000 *
Amount of training received was satisfactory for each of the curriculum streams:				
coordination	6	.667	7	.700 *
color-art	8	.889 *	8	.800 *
science	8	.889 *	6	.600
alphabet	8	.889 *	9	.900 *
reading readiness	3	.333	10	1.000 *
SWRL reading program	4	.444	6	.600

* Met Criterion

Other Evaluative Data

{Objectives 4,6,7,8,11,12&16}

Other areas of management operation proceeded successfully. Records for fiscal, statistical, and curricular use were maintained as verified by the master file list and index (objective 4). Eligible children were identified and enrolled in the Project as evidenced by the fact that the number of participating families had been maintained at a level greater than the established minimum criterion, and by the fact that each community coordinator maintained a visitation load within the established limits (objective 6). The project director advised, cooperated, and acted as secretary to the Community Council as recorded in the minutes of the meetings of that advisory body (objective 7). The project director coordinated purchases for the Project as evidenced by his signature on purchase orders (objective 8). Staff assignments and responsibilities have been designated as evidenced by completed job descriptions - see pp. in the "Implementation Evaluation" section of this report (objective 11). A feedback method for maintaining staff involvement in decision making has been established and operated successfully as indicated by the high rate of attendance of the community coordinators at weekly staff meetings (objective 12). And finally, all evaluation activities have been activated commensurate with the Project evaluation plan (objective 16). A summary of the accomplishment of management operations is displayed in Table M5.

TABLE M5
SUMMARY OF MANAGEMENT OPERATION
ON SELECTED PERFORMANCE OBJECTIVES

Test Conditions	1971-72 Accomplishment/ Criterion	1971-72 Accountability	1972-73 Accomplishment/ Criterion	1972-73 Accountability	1973-74 Accomplishment/ Criterion	1973-74 Accountability
Quarterly review	4/4	100%	9/4	100%+	13/5	100%+
Staff meetings	32/12	100%+	28/12	100%+	23/14	100%+
Evaluation reports	1/1	100%	2/2	100%	2/2	100%
Community Advisory Council reports	11/5	100%+	9/5	100%+	9/6	100%+
Number of lessons	15/14	100%+	29/28	100%+	45/4.	100%+
PPSQ questions w/favorable response	4/6	67%	6/9	67%	9/10	90%
Budget reports	12/12	100%	12/12	100%	15/15	100%
Quarterly reports	4/4	100%	4/4	100%	5/5	100%
10-32 families per coordinator	17/17	100%	19/19	100%	21/21	100%
Number of months w/relevant visitation load	8/8	100%	8/8	100%	8/8	100%
Deadline for minimum staff load	9-17/10-1-71	+2 wks.	9-22/10-1-72	+ 1 wk.	9-17/10-1-73	+2 wks.
Attendance	11/11	100%	9/9	100%	9/9	100%
Agenda prepared	11/11	100%	9/9	100%	9/9	100%
Minutes of meetings prepared	11/11	100%	9/9	100%	9/9	100%
Deadline	8-24/7-30-71	-3 wks.	8-15/8-31-72	+2 wks.	8-15/8-31-73	+2 wks.
Rating of employees	15/16≥70%	94%	Not Applicable		Not Applicable	
Rating by employees	6/7≥70%	86%	13/14≥70%	93%	10/13≥70%	77%
Number of staff meetings w/100% attendance	16/12	100%+	17/12	100%+	10/15	67%
Frequency of review of project	11/3	100%+	10/3	100%+	10/4	100%+
Enrollment total	325/300	100%+	403/300	100%+	455/300	100%+
Deadline for minimum enrollment	9-17/10-1-71	+2 wks.	9-22/10-1-72	+1 wk.	9-12/10-1-73	+3 wks.
Number of transfer activities	27/10	100%+	14/10	100%+	12/11	100%+

SUMMARY OF PROGRESS

Instructional - Basic Component

1. Bench-mark data concerning the performance on the Project instructional objectives of first grade children, who had not been involved in a concerted preschool educational program, indicated that there was considerable room for the learning of school-related skills at the preschool level. Within that bench-mark group, 28% of the children successfully performed 90% (34 or more) of the skills as indicated by the judgement of classroom teachers. Within the Early Childhood Education Project, 80% of the children who participated in the program for 3 years plus a 4-week summer program successfully performed 90% of the 38 instructional objectives as indicated by the judgement of paraprofessional community home visit coordinators (teachers). That difference was statistically significant. No other group of Project participants (1 year, 1year plus summer, 2 year, 2 year plus summer, 3 year) performed in a manner that was significantly different from the performance of the bench-mark group of youngsters.

2. A reliability study, concerning the consistency of judgement with respect to what constituted successful performance of each objective, was conducted during the collection of the bench-mark data. Classroom teachers who taught for only one-half of a day each rated the youngsters under their tuteloge on the 38 skills. For one half of the instructional objectives, the judgment of teachers regarding the performance of first-grade youngsters was reliable. However, there appeared to be a tendency to "overrate" the success of the children. Thus, there may have been a greater need for the program than was indicated by the outcomes summarized in number 1, above. For 12 objectives, the reliability of the judgment of certain other skills was found to be questionable. Those objectives were refined both in terms of description and judgmental criterion for successful performance.

3. Certain skills initially deemed necessary to the instructional thrust of the program appeared to be a function of maturation rather than learning on the part of children. Specifically, those were skills involving:

   hopping; standing on 1 foot; walking on one's toes;
   various self-help skills; listening to a story; sharing;
   independence from the home environment.

   Yet in light of the outcome in number 2, above, monitoring of performance with respect to those skills was continued especially for 5-year old youngsters.

4. Baseline data collected on Project participants revealed that all Project length of participation groups who entered the program at the same age (e.g., 3 year old children participating for 1 year, 4 year old children participating for 2 years, and 5 year old children participating for 3 years) began their participation on an equal basis. However, there were some differences in baseline performance that were related to the age of participants at entry into the program. Over all 38 instructional objectives, and also for the group of cognitive and the group of psycho-

motor skills, there was a direct relationship between age and initial level of accomplishment. That is, 5 year old children were at a higher level than 4 year old children and those youngsters were at a higher level than 3 year old participants although the amount of difference between 4 and 5 year olds was less than that between 3 and 4 year olds. On the group of social skills, however, entering 3 and 5 year old children were performing at approximately the same level while entering 4 year old youngsters performed at a level below that of entering 3 year old children. That was particularly apparent for a subset of social skills involving social behavior within a goup.

5. Progress data collected on Project participants near the time at which they terminated participation from the program manifested the following outcomes:

   * There was a direct relationship between length of participation and mastery of skills as indicated by the fact that 3 year olds participating for 1 year, 4 and 5 year olds participating for 2 years and 2 years plus a summer program, and 5 year olds participating for 3 years and 3 years plus a summer manifested increased accomplishemnt over a significant proportion of the 38 instructional objectives.

   * The direct effect of length of participation as related to mastery of objectives was also apparent within the groups of cognitive, social, and psycho-motor skills.

   * The intensity of the length of participation effect tapered off between the second and third year of participation. In other words, the length of participation effect as reflected by the proportion of children exhibiting mastery on a particular objective, by the average proportion of children mastering a group of objectives, and by the average proportion of growth demonstrated by participants over the 38 objectives tended to maximize after 2 years or 2 years plus a summer of participation.

   * The effect of age on mastery of skills was slight. Within groups of objectives, older children mastered a lesser average proportion of social skills and a greater average proportion of cognitive skills than younger children. The effect of age on mastery of psycho-motor skills showed mixed results.

   * Differences in the average proportions of mastery of the three groups of objectives within a given age goup of participants decreased with an increase in age. That is, the average proportions of cognitive, social, and psycho-motor skill accomplishment were more nearly equal for 5 vear old children than for 4 year old participants; average proportions of accomplishment for 4 year old youngsters were more nearly equal than those for 3 year olds.

6. Comparisons of the performance of 5 year old groups of participants to the performance of the bench-mark group resulted in the following outcomes:

   * The average proportion of difference in mastery of each of the 38 instructional objectives, and the average proportion of mastery over

all of the objectives, for 5 year olds participating for 1 year and 1 year plus a summer was far below that of the bench-mark group.

* The average proportion of difference in performance of each of the 38 instructional objectives for 5 year old children participating for 2 years, 2 years plus a summer, 3 years, and 3 years plus a summer was higher for the objectives involving: reciting the alphabet in order, naming the letters of the alphabet, printing one's first name, counting 10 objects, indicating left and right, naming the 8 basic colors, following a sequence of 4 directions, reciting verses or singing songs of 4 lines or more, cutting objects with curved and straight lines, using paste materials, participating in a project, taking turns, and playing table games.

* The average proportion of mastery over all 38 instructional objectives for the four groups mentioned directly above was approximately equal to that of the bench-mark group (within 5-9%).

* A significantly greater proportion of 5 year olds who participated for 3 years plus the summer program were able to demonstrate mastery of 34 or more of the 38 instructional objectives. The proportion of 5 year old children in the 1 year, 1 year plus summer, 2 years, and 2 years plus summer who demonstrated mastery of 34 or more of the objectives was about equal to that of the bench-mark group.

7. Monitoring of the Project participants on three behaviors deemed to be reflective of "self-concept" revealed that length of participation in the program rather than the age of the participants influenced the proportions of children who manifested "positive self-concept" behaviors. Furthermore, the patterns of performance on the "self-concept" behaviors seemed to parallel the patterns of performance on the instructional objectives of the various age/length of participation groups of participants; a lesser proportion of first-year 3, 4, and 5 year old youngsters exhibited "positive self-concept" behaviors than did second-year 4 and 5 year old children; a lesser proportion of those latter groups manifested "positive self-concept behaviors" than did third- year participant groups.

8. Viewing the performance of all age/length of participation groups of participants in terms of initial baseline performance on the 38 instructional objectives, of progress as related to that baseline data, of progress of particular length of participation groups of 5 year old children as compared to the performance of the bench-mark group, and in terms of the performance of Project participants on the 3 "self-concept" behaviors, it would appear that the program had a greater impact on 3 year olds who participated for 1 year, 4 and 5 year olds who participated for 2 years, and 5 year olds who participated for 3 years than on 4 and 5 year olds who participated for only 1 year. Moreover, it might be concluded that families with 4 or 5 year old children who entered the program for the first time, and remained in the program for only 1 year, did so for reasons that were different from those families who entered the program with 3 or 4 year old children and remained for 2 years or more.

9. Follow-up evaluation of Project participants who had entered school and were in the first, second, or third grade yielded the following results:

   * At grade 1 on a test of reading readiness the 2 year and 3 year plus summer participation groups significantly outperformed the bench-mark group.

   * At grades 2 and 3 on a test of reading readiness, and at grades 1 and 2 on a test of reading achievement, none of the groups of children who participated in the program performed at a level that was significantly higher than the bench-mark group.

   * At grades 1, 2, and 3 on a test of reading readiness and on a test of reading achievement, 13 of 14 groups of Project participants performed at a higher level than the bench-mark group and 12 of 14 groups of program participants performed in a manner that was less variable than the banch-mark group. The consistnecy of that performance was significant.

Instructional - Specialized Component

1. All children who participated in this component of the Project have been learning new skills since entering into a learning program. Moreover, those skills were not only rudimentary but were also ones which had already been mastered by the children participating in the basic component. In addition, the learning accomplishment of children working on the tasks designed for them proceeded at a much slower rate than in the basic component.

2. While there was a basic core of curricular materials provided by the Project, the educational program designed for a particular child was highly personalized. Much of the learning activity involved language development.

3. Some of the highlights regarding the accomplishments of children participating in this component of the Project were:

   * A 3 year old child who had never uttered any sounds other than grunts and cries now has a speaking vocabulary of 15 words.

   * A 6 year old child who had never walked is now able to take 5 steps by himself.

   * Six 3, 4, and 5 year old children who were unable to speak clearly can now be understood by persons not familiar or intimately associated with them.

   * A 4 year old child who had to be fed and could not talk now feeds himself with a spoon, can identify the letters of the alphabet, count from 1-25, identify the numerals from 1-25, and speak with simple sentences.

   * Four 3, 4, and 5 year old children, formerly unable to maintain eye contact with a teacher or with learning materials,

have increased their ability to attend to problem solving activities and to work on tasks for a period of 10-20 minutes.

4. At the present time, the general nature of this component of the program is exploratory. Questions regarding the amount of accomplishment by the children, the optimal kind of learning experiences for the children, and the length of participation necessary to prepare the youngsters for a more formal educational experience remain unanswered. Hence, general goals and specific performance criteria relevant to accomplishment on the part of the group of children in this portion of the program have yet to be established. Judgements relative to overall performance accomplishment cannot, therefore, be made.

Teaching

1. The response of over 80% of a self-selected sample (60% of the participating families) on the Parent Survey Questionnaire, deployed in November 1971, indicated high enthusiasm toward the program. Moreover, the variety and openness of that response added a measure of credibility to the resultant information concerning the attitudes, feelings, and opinions of participants toward the program. Those data not only manifested the accomplishments concerning the teaching processes of the Project but also indicated directions for future planning and training.

2. Second, third, fourth, and fifth surveys of the attitudes and feelings of a random sample of participating parents were taken in May 1972, November 1972, May 1973, and February 1974, respectively. The outcomes of those surveys generally paralleled those of the previous one. Specifically, most ($\geq$ 80%) of the parents of participating youngsters felt that:

   * they were favorably enthusiastic toward the program;
   * the purposes and procedures of the Project had been adequately explained to them;
   * the presentation of Project lessons by the community coordinators was clear and understandable;
   * the modeling of the teaching procedures to be employed in utilizing the lessons and activities was adequate and included enough ways of teaching the outlined tasks, plenty of suggestions of educational materials to use when teaching a lesson, and an adequate number of ways of praising a child's work;
   * the lessons and activities brought other learning experiences to mind which could be used in the teaching of one's child;
   * their teaching skills were strengthened through the use of the Project lessons and activities;

* the lessons provided through the program were fun and enjoyable for both them and their children, made it possible for them to teach their children as they wished, and contained language that was understandable;

* the Project reading "parties" (small groups of 6-10 parents and their children that meet once each 6 weeks) were fun and enjoyable for both themselves and for their youngsters.

3. Certain areas of the operation of the Project remained problematic. With regard to the curriculum materials, it appeared that a greater emphasis on utilizing the things and everyday routines that naturally occur in the home as learning experiences was needed. Moreover, when modeling the teaching techniques employed in the lessons and activities, additional ways of helping the child to judge the value of his own work needed to be incorporated. It appeared, also, that more clarification as to the voluntary nature of the parents' decision-making role, with respect to their participation in the program, was in order. Providing a more varied system of dispensing the check-out books and extra learning activities such that the individual desires of participant families, with regard to receiving those items, was a fourth area that could have been more adequately accomplished. It seemed, as well, that a better process for providing liaison between participants and various community and governmental social service agencies needed to be developed. And finally, participation in the Project did not seem to have infused a change in the attitude toward learning on the part of older children in the family in as large a proportion of participating families as was desired.

4. Parental participation in both the basic and specialized components of the project continued at a high rate. The drop-out proportion of families has been 13-29% overall and less than 6% for reasons of dissatisfaction with the program. The attendance at group reading "parties" continued at a rate of 70-80% with less than 18% unexpectedly not attending. And 83-98% of the participating families have used most of the lessons presented (for which it was possible to obtain an accurate count).

5. Community coordinators visited homes, presented lessons, evaluated the learning progress of children on Project instructional objectives, conducted reading "parties", and participated in the reciprocal referral process between the two instructional elements of the Project within established limits of performance.

6. Community coordinators working in the specialized component of the program adequately utilized and modeled the techniques of behavior modification with participating parents.

Management

1. The management staff reviewed the operation of the Project on a minimum of quarterly. The input of evaluative data from a variety of sources aided and enhanced that review process. The originally

specified guidelines for timelines and operational procedure have been closely followed.

2. Multifarious dissemination activities have occurred. The scope of those activities has been beyond the initial expectation of the program developers, particularly with regard to national television news coverage (CBS), an article in the June 1972 issue of American Education, and the interest taken in this Project by the State of Oregon Department of Public Instruction and other school districts within the State.

3. Over 400 youngsters from 380 families were enrolled each year in the Early Childhood Education Project. Initial response to the program was good and that enthusiasm remained. That enthusiasm accrued not only for the Project materials and procedures but also for the program staff, in particular for the community coordinators.

4. The effort applied toward developing curriculum for the basic component instruction produced 45 lessons for first-year, second-year, and third-year students as well as a summer lesson packet for all participants. In addition, a library of check-out books was compiled and numerous resource kits and enrichment activities were prepared. That alone was a formidable task and the accomplishment appeared even more significant when buttressed by the favorable reception of those materials by the participating families.

5. Adequate procedures were devised for selecting and training the Project teaching staff. Here again, the accomplishment was borne out by the continued positive reaction toward the community coordinators on the part of the program participants.

6. The usual and necessary problems and tasks of administration have been dealt with in an efficient manner. All staff members have had an opportunity to and have participated in the Project decision-making processes as evidenced by their participation in the weekly staff meetings. In addition, the evaluation scheme provided information that enabled informed decisions to be made.

COST ANALYSIS

Two facets of the cost of the Project are detailed in Tables CA1 and CA2. One set of figures delineates the annual costs involved for the development and implementation of a program such as this. The other set of figures displays the annual costs with regard to the implementation of an existing program. In this latter case, the curriculum would already be available for use; the management staff (e.g., an elementary school principal, an evaluator, and a curriculum specialist) would be employed as "consultants" on a needs basis, i.e., for initial community coordinator training, evaluation data analysis and reports, and modifying or creating needed learning materials, respectively; and the Project would be run almost entirely by paraprofessionals from the community.

These sets of costs were based on a pupil load of 440 in the basic component and 60 in the specialized component. Furthermore, other parameters, perhaps unique to a rural area, affect the expense of operation. Distances between homes are greater than in many urban areas so the travel costs would be affected. The ratio of children to families, in the case of families being served by this Project, is 10:8. The wealth of the area served by the Project is among the lowest of any area in the State of Oregon; hence, the cost of living and, reciprocally, the salaries paid may be somewhat lower than in other areas.

In light of the above discussion, it is important to explore some of the strengths and limitations of this model within which to operate a preschool education program. It is assumed that a building exists in which the project staff may be located. First of all, the capital outlay expense is minimal.

Secondly, in an area where families tended to be larger and distances between homes tended to be shorter, the rate of increase in costs would be less than the rate of increase in the number of persons being served (given, of course, an approximately equal cost of living factor as reflected by current wage and salary scales). Thirdly, the cost of curriculum materials, including both lesson activities materials and resource library materials, is gratifyingly low, i.e., about $28 per child per year. Fourth, the model allows for much more flexibility in terms of operation, time of participation, cost, and (most importantly) the learning experiences provided for children than is usually available in a more traditional type of preschool experience. With respect to the shortcomings of this model, there is some difficulty in locating and assembling prepared curriculum materials which are directly applicable to a home teaching situation, pre-training and on-the-job training is required for the paraprofessionals involved, and some means of transportation must be available for use by the community coordinators throughout the day.

Table CA 1

DEVELOPMENT AND IMPLEMENTATION
of a Preschool Education Program for
3, 4, & 5 Year Old Children

Cost Analysis

BASIC COMPONENT — 440 Children; 390 Families

		$	$
A.	Salaries		
	Director (1, F.T.E., 12 mo.)	15,900	
	Evaluator (1, 3/4 F.T.E., 12 mo.)	13,600	
	Curriculum Specialist (1, F.T.E., 11 mo.)	11,000	
	Community Aide Supervisor (1, F.T.E., 10 mo.)	7,500	
	Community Aides (14, F.T.E. (35 hrs/week) -28 families/aide, 9 mo.)	38,800	
	Secretary (2, .8 F.T.E., 11 mo.)	6,500	
	Teachers (5, F.T.E., 5 wks., summer)	2,000	95,300
B.	Supplies		
	Office & evaluation	1,300	
	Curriculum & Resource Library	10,800	
	Telephone	700	12,800
C.	Travel		
	Management	1,700	
	Community Aides (15¢/mile)	7,300	
	Transportation (summer)	1,300	10,300
D.	Capital Outlay	3,400	3,400
E.	Other Expense		
	Fringe benefits @ 14% of salaries	13,300	13,300
			$135,100

$310/child - 1st year
$910/child - 3 years (capital outlay expense for 1 year only)

Table CA 1 (cont'd)

Cost Analysis

SPECIALIZED COMPONENT	60 Children	
A. Salaries	$	$
Director (1, F.T.E., 12 mo.)	*	
Evaluator (1, ¼ F.T.E., 12 mo.)	4,600	
Educational Specialist (1, F.T.E., 10 mo.)	14,000	
Community Aides (3, F.T.E. (35 hrs/week) - 20 families/aide, 10 mo.)	9,250	
Secretary (1, .2, F.T.E., 11 mo.)	850	28,700
B. Supplies		
Office & evaluation	200	
Curriculum & Resource Library	1,300	
Telephone	200	1,700
C. Travel		
Management	*	
Community Aides (15¢/mile)	3,400	3,400
D. Capital Outlay *	500	500
E. Other Expense		
Consultant/training	2,200	
Fringe benefits @ 14% of salaries	4,025	6,225
		$40,525

$675/child - 1st year
$2,015/child - 3 years (capital outlay expense for 1 year only)

* Cost subsumed within BASIC COMPONENT

Table CA 2

IMPLEMENTATION
of a Preschool Education Program for
3, 4, & 5 Year Old Children

Cost Analysis

BASIC COMPONENT — 440 Children; 390 Families

	$	$
A. Salaries		
Director (1, 1/8 F.T.E., 12 mo.)	2,000	
Evaluator (1, 1/16 F.T.E., 12 mo.)	1,100	
Curriculum Specialist (1, 1/16 F.T.E., 11 mo.)	700	
Community Aide Supervisor (1, F.T.E., 10 mo.)	7,500	
Community Aides (14 F.T.E. (35 hrs/week) -28 families/aide, 9 mo.)	38,800	
Secretary (1, 1/2 F.T.E., 11 mo.)	2,300	
Teachers (5, F.T.E., 5 wks., summer)	2,000	54,400
B. Supplies		
Office & evaluation	900	
Curriculum & Resource Library	10,800	
Telephone	500	12,200
C. Travel		
Management	500	
Community Aides (15¢/mile)	7,300	
Transportation (summer)	1,300	9,100
D. Capital Outlay	750	750
E. Other Expense		
Fringe benefits	7,600	7,600
		$ 84,050

$190/child/year
$570/child/3 years

Table CA 2 (cont'd)

Cost Analysis

SPECIALIZED COMPONENT	60 Children	
	$	$
A. Salaries		
Educational Specialist (1, F.T.E., 11 mo.)	15,400	
Evaluator (1, 1/16 F.T.E., 12 mo.)	1,100	
Community Aides (3, F.T.E. (35 hrs/week) - 20 families/aide, 10 mo.)	9,250	
Secretary (1, 1/4 F.T.E., 11 mo.)	1,050	26,800
B. Supplies		
Office & evaluation	200	
Curriculum & Resource Library	1,300	
Telephone	200	1,700
C. Travel		
Management	500	
Community Aides (15¢/mile)	3,400	3,900
D. Capital Outlay	250	250
E. Other Expense		
Consultant/training	2,200	
Fringe Benefits	3,750	5,950
		$38,600

$645/child - 1st year
$1,925/child - 3 years

IMPLEMENTATION EVALUATION

As with any novel and innovative project, particularly one such as this program which included a heavy experimental segment, the problems, concerns, and lessons to be learned from the implementation of the operation are of interest. There are, of course, general areas of implementation that are common to the initiation phase of any given operation. These areas include delineation of the goals of the program, selection of personnel, development of the operational processes that would guide the endeavor throughout its existence, and establishment of an evaluation scheme to monitor the effectiveness of the project.

Program Assumptions and Goals

The foundation of any program, and the subsequent success of its operation, stems from the assumptions upon which that program is based. Before those assumptions were finally articulated for the South Douglas County Early Childhood Education Project, however, an assessment of the educational needs of the community was conducted. The needs assessment involved school administrators, teachers, and members of the community at large operating as an advisory committee. This planning process took place over a period of 6 months and revolved around bi-weekly or monthly task group meetings. Then, based upon what was deemed to be needed, coupled with what, in the best judgment of members of the educational community and the community as a whole, ought to be done, three assumptions concerning the Early Childhood Education Project were delineated. These were:

- The Program is designed to establish a parent and school partnership for the express purpose of encouraging and stimulating the educational growth and development of children.
- Parents can be adequate and efficacious teachers.
- It is the intent of the Project to maximize the individual differences and capabilities of each child who participates in the program.

With these three assumptions in mind, certain broad percepts or "exploratory objectives" which the Project hoped to accomplish were defined. These included:

- To maximize the sense of competence, usefulness, and belongingness of parents, children, and other members of the community within the process of education.
- To maximize positive attitudes toward education throughout the community.
- To maximize the atmosphere of acceptance of diversity and of questive attitudes on the part of all community members.
- To constitute the focus and structure of the primary grade school so that it adapts readily to the needs of individual children.
- To enhance children's patterns of success.
- To establish conditions such that an attitude of high aspiration - high achievement will obtain.
- To maintain reading readiness and the reading achievement of youngsters at a high level.

Once the initial planning had been completed and the primary goals defined, the next step in the implementation process was that of selecting the staff to run the program.

Personnel Selection

With respect to the implementation of the South Douglas County Early Childhood Education Project, no one of the staff could accurately be designated as a key or nuclear individual. Rather, the director, the supervisor of community coordinators, the educational specialist, the curriculum specialist, and the evaluator were required to work as a team with each not only bringing his unique contribution to bear upon the development of the program, but also subordinating and melting his own personal, theoretical, and practical ideas and concerns into the overall thrust of the project. In the case of this particular program, for which goals were developed and defined by persons who would not be directly involved with the daily operation of the project, each of the five management staff was selected in terms of his accordance with the already established general ideas and goals that were to be implemented. It was also assumed that the goals would be modified by the management staff as the planners' hopes became realities.

The project director was, quite naturally, designated as the leader of the operation. The key selection factors for this individual were enthusiasm toward the ideas and goals contained within the scope of the program, flexibility and willingness to deal with members of the educational community and the community at large, and some theoretical background and experience in the discipline of preschool education. The ideal person for this position would be one who had had experience in the area of early childhood education and who had felt the need and the desire to have a program such as this one established.

The supervisor of community coordinators (home visit teachers) is perhaps best conceived of as an assistant to the director. The selection of this individual was geared around the criteria of nonprofessional educational certification, i.e., a paraprofessional, a known member of the community, previous

experience in working with young children in an educational setting as a teacher and parent, and flexible leadership ability. This latter criterion was especially important in terms of the South Douglas County Project since it was conceived and intended that, after the program was developed and finalized, it would be run by paraprofessionals. Also with regard to this Project, the individual currently serving in this capacity directed a pilot program involving 25 families during the year immediately preceding the one in which the program was implemented on a 3-school-district basis. Thus, this person had background experience relevant to the problems, techniques, and outcomes surrounding home visit teaching and modeling of instruction for parents.

The educational specialist was responsible for implementing the specialized (handicapped) component of the Early Childhood Education Project. Selection criteria included certification in the area of special education, previous teaching experience with children receiving this kind of learning assistance, knowledge and desire to develop new curricula to provide specialized educational experiences for youngsters, and ability and desire to work with paraprofessionals and parents.

The curriculum specialist was charged with the responsibility to develop learning experiences that incorporated the daily events which occurred in the home which could be utilized for, or from which could be gleaned, educational value for children participating in the basic component of the Project. This person was also to assist the educational specialist, in this regard, for the youngsters participating in the specialized component of the program. Four criteria were employed in selecting this individual. These included previous experience in teaching preschool and/or primary level children, theoretical

background in terms of how given basic educational skills should be taught, creativity, and an ability to incorporate ideas and constructive criticism pertinent to the curriculum from persons who did not possess an experience and knowledge background similar to that of the curriculum specialist. With regard to this latter criterion these "persons" would include parents, paraprofessionals, and professional educators.

The evaluator, as the title directly implies, was required to monitor the progress of the program product and process outcomes. But from an indirect perspective, the evaluator was also expected to assist in the planning and ongoing modification of the Project. The selection factors utilized were essentially two: the technical knowledge and competence to perform evaluative research, and a theoretical and practical experience background in early childhood learning from the viewpoint of both basic and of special education.

The final group of persons who completed the composition of the Project staff was that of the community coordinators. These individuals were crucial to the successful operation of the program for two reasons. One was that these individuals were designated as paraprofessionals who would continue to operate the program after the initial 3-year development phase. The other was that this group of staff members was the only direct and continual link, which was formed by means of their bi-weekly visits to the home of each participating family, between the management staff and the parents. The criteria used for selection of the community coordinators were combined into a rating form (see the Community Coordinator Rating Form). Each prospective coordinator was interviewed and rated by either the director or the supervisor of community coordinators. If the interview rating exceeded an established cut-off score, the coordinator was invited to participate in an extended interview/training

session that was 1 week in duration. During this workshop, coordinators were involved in role playing situations concerning possible situations that might arise in the course of their working with participating parents and children. They also participated in general information sessions wherein the goals and procedures of the Project were delineated, the presentation of lessons in the home was modeled, and the purposes and procedures that might be employed at "reading parties" were outlined. Each of the coordinators was again rated by the director, supervisor of community coordinators, educational specialist, and the evaluator. Final selection of the coordinators was then made.

Code #_____

NAME_____

AGE_____ SEX_____

SOUTH DOUGLAS EARLY CHILDHOOD EDUCATION PROJECT

COMMUNITY AIDE RATING FORM

1. Does the Aide:

	Yes	No
Have a car available for use	___	___
Have a valid driver's license	___	___
Have at least one child in 1st grade or above	___	___
Live within the area served by the project	___	___

2. Are:

The wages paid by the project acceptable to the Aide	___	___
The hours of work acceptable to the Aide	___	___

*3. Is the Aide easy to talk to?

1 | | | | | 6

Hard — Very Easy

no opinion ___

*4. Does the Aide seem to have the ability to work with different and varied types of people?

1 | | | | | 6

Not at all — Definitely

no opinion ___

*5. Does the Aide:	Yes	No	No Opinion
Listen well	2	___	___
Interrupt a speaker in mid-sentence	___	2	___
Dominate the conversation	___	2	___

*6. Would the Aide attempt to change a home environment which was felt to be unacceptable?

1					6
Definitely					Not at all

No opinion ___

7. How does the Aide feel about volunteering time for training purposes?

No problems __1__

Would not volunteer ____

Valuable experience __2__

No opinion ____

	Yes	No	No response
8. Has the Aide had experience working with children in the following areas:			
Handicapped	2	___	___
Volunteer work in community	2	___	___
Work in summer program	2	___	___
Service-oriented work generally	2	___	___
Custodial-oriented work	2	___	___
Teaching or training	2	___	___
9. Has the Aide had experience working with adults in the following areas:			
Handicapped	2	___	___
Volunteer work in community	2	___	___
Work in summer program	2	___	___
Service-oriented work	2	___	___
Custodial-oriented work	2	___	___
Teaching or training	2	___	___

10. Has the Aide:	Yes	Some	No	No Response
Worked with service-oriented professional personnel	___	___	2	___
Received training by professionals in service-oriented occupations	___	___	2	___

	Yes	No	No response
11. In response to how the Aide would fit the role required by the job did the Aide indicate:			
Would have no problems	2	___	___
Personal strengths	2	___	___
Personal weaknesses	2	___	___
Would not fit the role at all	___	___	___

Specific strengths and/or weaknesses indicated (if any):

*12. Indicate the Aide's ability as you perceive it for each of the following general characteristics:	Strength	Weakness	No opinion
Punctuality	2	___	___
Teaching ability-modeling instruction	2	___	___
Organizing materials for work	2	___	___
Following a schedule	2	___	___
Thoughtful responding	2	___	___
Friendliness	2	___	___
Organizing answers to questions or problems requiring solution	2	___	___
Working with 1 or 2 others	2	___	___
Appearance	2	___	___
Leadership ability	2	___	___
Flexibility	2	___	___
Working with 3 or more people	2	___	___

[1] A "no" response on questions 1 and/or 2 would, in most cases, disqualify the applicant. Questions 3-12 were used in the interview rating; points assigned are as indicated. Maximum score is 85; cut-off is 60, i.e., 70%

* Questions used in extended interview/training session; maximum socre is 48, cut-off is 34, i.e. 70%

Operational Processes

The operation of the Early Childhood Education Project is guided by three sets of objectives. One set consists of annual goals (see pp. 7-8). These are revised on a yearly basis and encompass the areas of curriculum development, evaluation of student accomplishment, identification of elements of the program which are important to its replication in other settings, and identification of training needs of educational personnel working in the primary grade classrooms that are necessary to meet the conditions outlined by the exploratory objectives. A second set of process objectives envelopes the teaching element of the program (see Table T1). The "product" group of objectives relates to the actual behaviors that the community coordinators are to perform as they conduct their home visitations; the "process" group of objectives alludes to the behaviors that hopefully will result from active participation in the Project. The third set of operational process objectives governs the management facet of the program (see Table M1). The "product" group of objectives delineates areas in which various kinds of documents should be produced as a result of the management staff carrying out its assigned functions. The "process" group of objectives refers to the various planning, coordinating, and directing responsibilities which the management staff is charged to fulfill.

Rather than present the rationale behind the development of these sets of objectives (which were, generally, gleaned from the needs assessment, the exploratory objectives, and the best judgment of members of the educational community and the community at large), it would seem to be more appropriate to consider the key facets of the operation of the Project that would be of interest to persons implementing a program such as this one.

Curriculum Development

An area that has occupied much of the time and concerns of the management staff is that of the development of a curriculum for the Project participants. The task was fourfold:

- o to devise lesson packages that were usable by parents in the home;
- o to incorporate activities into those lessons which occur naturally in a family environment and from which educational content pertinent to developing basic skills in reading, arithmetic, and discovering and exploring the wonders of one's world could be garnered;
- o to present those lessons to participants in a manner that was consistent with accepted knowledge concerning how children best learn and develop and pertinent to the best way to teach a given basic skill;
- o to be able to individualize the level of content in any particular lesson to conform to the unique needs of any participant.

The primary problem encountered was that there were few curricular materials on the market that met these four criteria. Moreover, those materials that were available were not designed for use in the home on a one-to-one basis. Furthermore, the limitations were even more acute within the specialized component of the program. The task of the management staff became one of searching out, collecting, and reviewing existing curricula in order to compile a base of material from which the Project lessons could be devised. The lesson activities were then organized into ten streams and three levels of skill development. The ten curriculum streams included: alphabet, reading readiness, mathematics, science, social studies, colors and art, coordination, shapes and patterning, music, and nursery rhymes. Enveloping this process was an additional consideration, that of preparing

a curriculum which was enjoyable to teach and to use for the participating families. The product produced thus far is an amalgamation of the collected existing material, the background knowledge accumulated by the supervisor of community coordinators during the pilot program and two years of Project operation, and the knowledge of the curriculum specialist.

The resultant curricula possessed both some strengths and some limitations. During the first year of operation, two surveys, one a self-selected sample of participating families conducted after 3 lessons had been presented (November) and the other a random sample of families conducted in May, revealed that over 85% of the respondents felt that most of the lessons were fun and enjoyable to teach and were also enjoyed by their participating children. Furthermore, in the Spring of 1972, a detailed survey of the curriculum activities was taken at one of the Project "reading parties". Those in attendance commented upon the necessity of including particular activities, the ease of teaching particular activities, and the enthusiasm of their children toward particular activities.

During the second year of operation, "curriculum committees" were formed in each of the three participating school districts. These committees were comprised of parents participating in the program, and were asked to meet at least once every 3 months with the conditional limitation that at least one of the three groups should meet in any given month. The purpose of these committees was to comment upon and offer suggestions for modifying lesson activities and operational processes of the Project. Also, the role which these committees play is a vital link in the establishment of an educational partnership between the school and the community.

Analysis of the results of these surveys and activities assisted in defining the acceptable and unacceptable aspects of the curriculum. Some indication of the enthusiasm and interest that participants had, with respect to the curriculum, was obtained from the many suggestions of activities to include, and of novel ways to teach, existing activities. These ideas were subsequently included on a "suggestions from parents" page in the lesson packets.

Limitations in the development of the curriculum occurred in the areas of inclusion of activities occurring naturally in the home, of building learning activities commensurate with accepted knowledge of how children should be taught basic skills, of individualization of activities to fit each child, and of providing activities for fathers to teach their children. With regard to the first and fourth of these shortcomings in the curriculum design, some progress was made toward ameliorating these limitations. The parent curriculum committee played an important role in this instance. The second and third of these limitations appeared to be a reflection of a lack of theoretical and experiential background on the part of the management staff. It was difficult, if not impossible, to find an individual who adequately fulfilled the criteria of selection for the curriculum specialist.

The Supervisor of Community Coordinators

As has previously been mentioned, the role of the supervisor of the community coordinators is critical to the success of a program such as this. The Early Childhood Project is conceived of as a program to be run almost entirely by paraprofessionals residing in the community being served. The experience and knowledge gained from operating a pilot program identical in nature to the full scale Project was invaluable. This experience was advantageous not only because of the knowledge gained concerning the successes and pitfalls of such a program but also because it provided an outline for the skills and information that should be emphasized in a training program for future community coordinators. Such concerns as: how to model instruction for parents, how to work with a parent and 1, 2, or 3 children simultaneously, how to evaluate a child's accomplishments while presenting a lesson, how to organize one's home visitation schedule, what to do about making up missed visits, how to prepare the necessary lesson materials for each child before making a home visit, how to prepare for and conduct a reading "party", and the many activities, tools, and techniques that might be utilized in the curriculum were deemed necessary to the training program for community coordinators as a result of experience gleaned from the pilot program.

Besides being actively involved in the supervision and training of the community coordinators, once the full-scale operation of the Project had begun, and in the development of curriculum, the supervisor of community coordinators was the director of other aspects of the home visitation process. Each lesson packet contains a "coordinator's outline" which delineates what activities are included in a particular lesson as well as the necessary materials and procedures

to be used by the coordinator in presenting the lesson to the parent. The supervisor was responsible for writing these outlines. Moreover, this individual was also charged with the duty of training coordinators in the techniques of presenting each lesson. Experience pertinent to the necessary content of these training sessions was obtained by having the supervisor present each lesson to 15 families two weeks before that lesson was scheduled for presentation to the entire group of participants. Finally, the supervisor of community coordinators was required to assist in setting up a resource library that contained games, books, and other educational activities. Items from this library were distributed in a revolving manner to participating families on a bi-weekly basis.

The Community Coordinators

The selection procedures and initial training efforts for this vitally important group of staff members has been described in the "personnel selection" section of this evaluation. There were, however, other important aspects of the Project implementation process that had direct bearing on the function of the coordinators.

One of these was the necessary on-the-job training requried for this group. Weekly staff meetings were held, usually on Friday afternoons. These meetings provided an opportunity for additional training in the areas of familiarizing the coordinators with the content of the lesson to be presented to participants during the subsequent two weeks, organizing a given lesson for a particular child, modeling the instructional techniques contained in that lesson for parents, and practicing the evaluation tasks that were necessary to monitor student progress. If a "reading party" was scheduled for the next bi-weekly period, the staff meeting served as an opportunity to familiarize the coordinators with, and to practice, the activities contained in that "reading party". In addition, training in the skills necessary for working with groups of children was also done prior to each of the "reading party" periods. The director and supervisor of community coordinators had the primary responsibility for conducting these staff meetings while the other members of the management staff supplemented the training effort when needed.

A second opportunity also provided for the training of the community coordinators by the supervisor of community coordinators and the educational specialist. Each of these individuals had the coordinators working directly under their supervision present selected lessons to them as the coordinators would do in the home.

Another aspect of the implementation process which had direct bearing on the function of the community coordinators was that of communication. The staff meeting not only enabled the coordinators to learn valuable teaching skills but also provided an opportunity for feedback comments and suggestions regarding the feelings of the parents toward the operational processes and curriculum materials provided by the Project. The home visit simulation exercises offered a chance for the coordinators to feed their novel ideas concerning working with parents back to the management staff for subsequent incorporation into the operation of the program.

There were, as well, some additional facets of the overall functioning of the community coordinators which required emphasis. One revolved around the area of lesson preparation. As the diversity of students increased, i.e., first-, second-, and third-year students, and as the sophistication of the curriculum accrued, the coordinators were faced with an increasingly complex task of being prepared to assemble and teach lessons for each participating youngster.

Another area of concern involved the problem of liaison between the coordinators and the regular classroom teachers of primary grade children. Often, each was only generally aware of what the other did, i.e., was unaware of the specific objectives and teaching techniques employed in each of the two learning environments. This lack of information was mollified somewhat through the 4-week summer program wherein home visitation coordinators worked alongside of teachers with 5 year old Project participants in a school situation. However, this procedure was not always a successful solution to that disparity; the procedure did not adequately deal with, nor rectify the differences in, the philosophies that undergird the processes of education employed in each of the two situations--the Early Childhood Education Project and the regular school

classroom. The former program assumes that both the teacher and pupil (the parents and the child) are adequate and knowledgeable persons who are capable of being both teachers and learners. The Project provides materials and processes to enhance existing consonant relationships--relationships that might be characterized as akin to those inherent in an equal partnership. The latter program assumes that the teacher is adequate and knowledgeable to teach and that the pupil may or may not be adequate to learn. Furthermore, the latter program assumes that the teacher is not to be a learner nor is the pupil adequate to be a teacher. The school provides materials to enhance existing dissonant relationships--relationships that might be characterized as akin to those inherent in a mutually exclusive contract.

Other techniques, designed to increase contact between teachers and coordinators, might be employed. These might include in-service meetings and workshops, a combined work schedule to include both home visits and teaching in the classroom, or conducting the "reading parties" in the first grade classrooms with parents, coordinators, teachers, preschoolers, and first graders all participating.

A final problem area was one encompassing the process of collecting data relevant to the progress of participating youngsters. During the first operational year, not all instructional objectives were included in the curriculum. Consequently, baseline data were collected on all instructional objectives during the beginning 6 weeks of the program. Follow-up collection occurred on selected instructional objectives that were directly related to lessons through the tasks delineated on the coordinator lesson outline, and was collected on the remaining instructional objectives through incidental observation. The thoroughness of observation over all children was high when the former follow-up

procedure was utilized but was somewhat lower when the latter technique was employed. Hence, explicit evaluation methods were built into the coordinator lesson outline for all instructional objectives, and procedures to record baseline and progress observations in relation to the occurrence of the objective in the sequential curriculum, for selected objectives, were incorporated into the evaluation scheme.

Relationship Between the Basic and Specialized Components

As has been discussed previously in this evaluation report, the specialized component may operate independently of the basic component or, in the case of some participants, youngsters may receive curriculum materials from both components. When children participate exclusively in either of the two components, there is no problem of overlap. The educational specialist performed within the specialized component much as the supervisor of community coordinators did within the basic component. That is, the educational specialist was responsible for curriculum development and coordinator training where those materials and individuals were assigned to children who participated only in the specialized program.

In the instance where overlap does occur, however, some problems did arise. One such problem was that of which component would prepare coordinators to teach both types of learning experiences to participating families. This duty was given to the specialized component. However, the educational specialist also trained coordinators connected with the basic component to use techniques employed by the specialized component as the need arose. And the procedure of reassigning coordinators to a particular family as youngsters moved into or out of one component or the other was also employed, since to train all paraprofessional community coordinators in the utilization of techniques used in both components would have been too time consuming and expensive, although perhaps it might be an eventual possibility over a 5 year period.

Another such problem was that of cross-referral. This was a matter of discovering adequate techniques to delimit when a child should be given different kinds of learning experiences, from those he might currently be receiving,

in order to avoid locking him into one or the other of the two components. During the first year of operation, the criterion of failure to master a skill after 95% of the children in a given age level had mastered the skill was used to refer youngsters to the specialized component (the criteria of parental request and/or obvious difficulty were used as well). Similarly, the reverse procedure was used to refer children from the specialized to the basic component, i.e., a child could successfully perform the skill or skills before 95% of his peers were able to do so. However, this procedure allowed too much failure to occur for the child in question. For the next operational year, 4 year old participants were screened with respect to their success on selected instructional objectives (specifically, objectives 1, 3, 5, 6, 12, 20, 21, 23, 25, 28-30, & 38) at the beginning of the school year. If they were not able to perform adequately, they were referred to the specialized component; again, the reverse procedure was employed for referral to the basic program. As the curriculum became more individualized, children were referred from one or the other of the two components based upon their success/failure of "level one" tasks or activities irrespective of their age. This procedure allowed children to be matched with levels and kinds of learning experiences that coincided with their individual needs.

"Reading Parties"

The Early Childhood Education Project "reading parties" were held each 6 weeks. Parents of participating families and their children in the program met in small groups (6-10 parents and children) in a room in the school that the children would be attending in the future or in some other community building. The purposes of these gatherings were to provide group learning experiences for the youngsters and to present the next lesson to be used over the succeeding 2 weeks to the parents. The community coordinator who normally visited them in their home presented the lesson, and two additional coordinators conducted the learning activities which were provided for the children. Both groups met separately. Each "party" lasted approximately two hours, two were held each day (one a.m. and one p.m.), and each coordinator presented lessons at 4 to 6 such "parties" over the bi-weekly period.

These "reading parties" also provided an opportunity for parents to share information regarding teaching techniques and lesson activities that had succeeded and failed with their children. Also, it offered a chance for the sharing of ideas of other things to teach children and to present alternative ways of teaching these activities. The success of this facet of the "reading party" process was less than adequate. This lack of accomplishment may have stemmed from three reasons. First, the same group of parents and children did not meet together at each "party". Thus, the group usually consisted of relative strangers which may have had a dampening effect on conversation. Second, some of the families were new participants. Perhaps, the fact that their role as teachers, the instructional techniques contained in the lesson packets, and, indeed, the lesson activities themselves were new to them left them uncertain as to what was successful or unsuccessful. And third, the community coordinators were not trained in the techniques of initiating and stimulating group discussion

(at least the management staff did not provide this training).

Other means might be utilized for eliciting direct feedback from participants regarding the program. One possible solution might be to have the same parents always meet as a group. Another might be to provide training for the coordinators which would make them better able to lead group discussions. Another option might be to provide activities at the "party" where parents work directly with their children; then after the activity is concluded, parents might meet as a group to discuss the teaching successes and problems involved in that particular activity before discussing the program as a whole. Still another solution might be to conduct the "reading parties" in a regular first grade classroom with the teacher, instructional aide, parents, community coordinators, Project youngsters, and first graders operating as a class.

Program Evaluation

The evaluation scheme of the Early Childhood Education Project was organized around two guiding principles. These were that the evaluation process should provide data which enables informed decisions to be made, and that the evaluative data should be provided as part of the natural course of program operation rather than be imposed upon it. The implication of the first of these principles is that information which bore upon the successes and failures of the program process and product outcomes, and which alluded to why such successes or failures might have occurred, should be obtained. The second of these guideposts implies that the evaluative data should be gathered as part of the normal course of work and not require any extra operations (except that of recording observations).

For an outline of the time-frame and sequence of procedures involved in the Project evaluation plan, the reader is advised to review the chart entitled "South Douglas County Early Childhood Education Project Evaluation Time-Line". This time line was revised near the end of the first year of the Project operation and was updated as the need arose. A detailed account of each of the evaluation instruments employed within the Project evaluation scheme is presented below.

School Performance Data and Reading Readiness Tests

These two kinds of data were collected from that currently used within each of the school districts served by the Project. Such items as attendance records, reading readiness test scores, success on standardized tests of achievement, and performance recorded on behavioral checklists were used as

historical or baseline measures and as bench-marks against which to view student accomplishment in the primary grades. Comparisons were made between Project and non-Project participants.

Student Evaluation Form

This document was the heart of the evaluation scheme. It served two purposes: it functioned as a note-recording device which enabled the community coordinators to individualize each child's instruction program; and it functioned as a checklist enabling the community coordinator to monitor each child's progress on each lesson, to record each child's successful accomplishment of program instructional objectives, and to record whether or not lessons were actually presented and used by the participating families. Moreover, it aided the management staff in determing whether or not the lessons were effective. Each coordinator completed this instrument for each participating child. Analysis was done after 3 lessons were presented and monitored, i.e., every 6 weeks.

Student Behavioral Checklist

This instrument was utilized in collecting bench-mark data for first grade children with respect to their performance on the 38 Project instructional objectives. These data were collected during the first month of the school year and reflected the performance of youngsters who had not participated in a concerted preschool education program.

The Vineland Social Maturity Scale & The Basic Concept Inventory

These two standardized instruments were used as initial diagnostic devices for children designated or referred to the specialized component of the Project. They were chosen because each instrument diagnosed performance of skills for which follow-up learning experiences could be provided by the Project.

Individual Lesson Checklist

One such checklist related to each lesson designed to assist a child in successfully mastering each "enabling objective" subsumed under the Project instructional objectives within the specialized component. It also allowed the community coordinator to record mastery of all subobjectives for each enabling objective attempted.

Student Progress Record

This instrument was employed to monitor progress of youngsters who participated in the specialized component of the program. It is the specialized component instructional objective counterpart of the Student Evaluation Form from the basic component.

File List

There was one such list for each file maintained by each of the management staff and a master index compiled from the individual lists. The lists were used as references for the location of Project documents and materials as well as for recording the kinds of materials kept by the program.

Minutes of Meetings

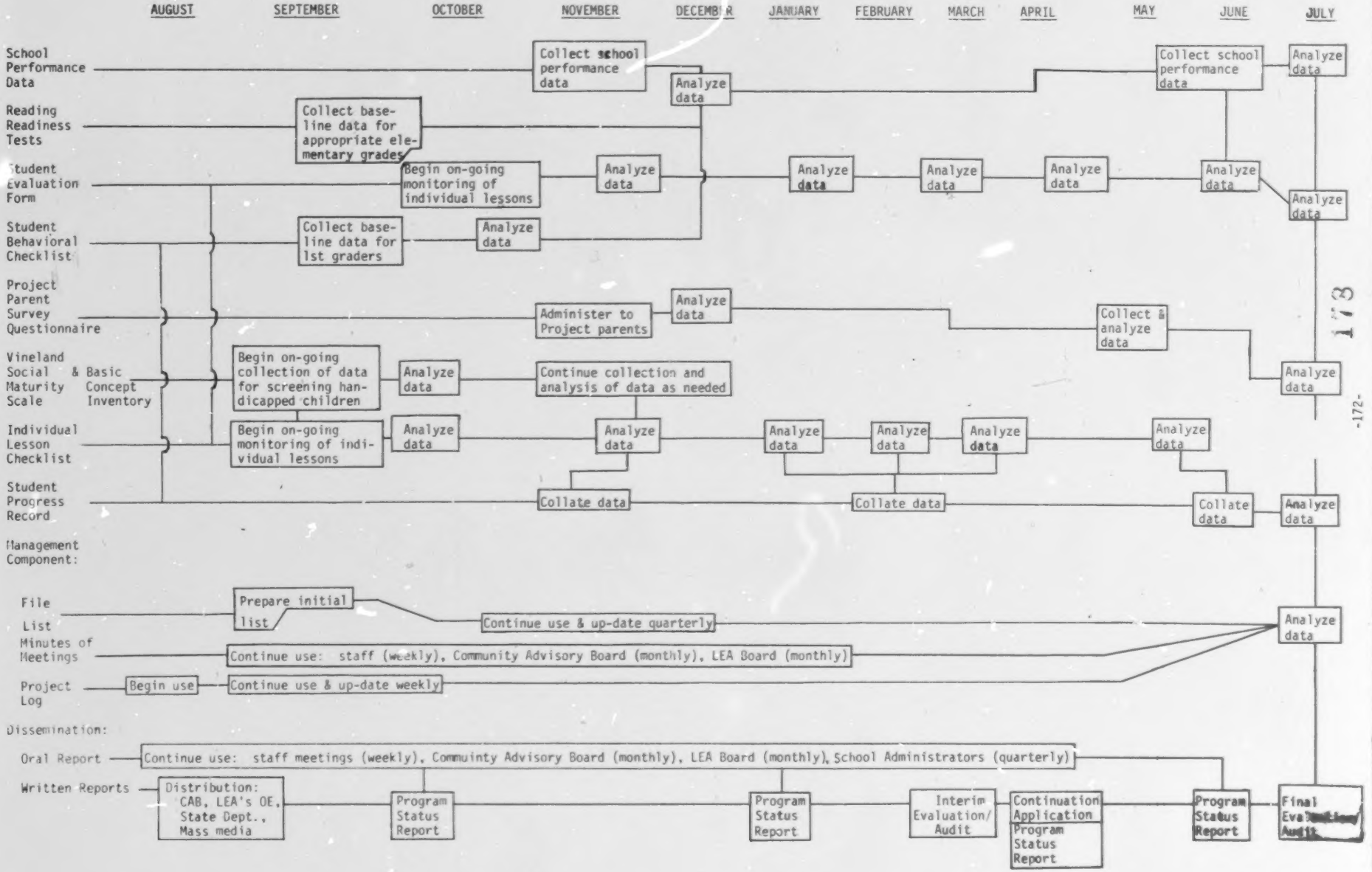
These documents provided verification of management component product and process objectives requiring attendance at meetings, feedback to the staff and community, and a record of meetings which were held.

Project Log

This device provided an on-going record of Project events and processes. The form allowed for indicating the date, event, and pertinent management objective covered by that event. A log is maintained by each management staff member and these were amalgamated into the general Project Log.

Parent Project Survey Questionnaire

This survey contained questions related to: evaluation of the overall project; monitoring of the effectiveness and quality of the community coordinators; and assessment of the effectiveness, usefulness, and desirability of the curriculum materials. In general, it contained checklist and rating scale types of items measuring compliance with Project teaching product and process objectives.

11-30-74

SOUTH DOUGLAS COUNTY EARLY CHILDHOOD EDUCATION PROJECT EVALUATION TIME-LINE